THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

VOL. VIII. ALBANY, N. Y., FEBRUARY, 1860. No. 2.

PUBLISHED BY LUTHER TUCKER & SON,
EDITORS AND PROPRIETORS, 395 BROADWAY, ALBANY, N. Y.

J. J. THOMAS, ASSOCIATE EDITOR, UNION SPRINGS, N. Y.

AGENTS IN NEW-YORK:

C. M. SAXTON, BARKER & CO., Ag. Book Publishers, 25 Park Row.

THE CULTIVATOR has been published twenty-six years. A NEW SERIES was commenced in 1853, and the seven volumes for 1853, 4, 5, 6, 7, 8 and 9, can be furnished, bound and post-paid, at $1.00 each.

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"THE COUNTRY GENTLEMAN," a weekly Agricultural Journal of 16 quarto pages, making two vols. yearly of 416 pages, at $2.00 per year, is issued by the same publishers.

Editorial Notes Abroad.

No. XXVII—A Visit in Suffolk last July.

The Native County of ARTHUR YOUNG—His Works and their Popularity—Stationary Disposition of the English—Ipswich and Woodbridge, and the Drive to Butley Abbey—The Rectory—THOMAS CRISP, Esq., his Farm and Stock—the Short-Horns—Fattening Animals for Exhibition—Disposition of the Farm—the Open Sheep Walks and Furze—Mining for Coprolites—Sheep Boarding out—Rotation Employed, with a "Stolen Crop," and the Operations of Four Years.

A prophet, it may be said, is not without honor, save in his own *county*—and according to Mr. CAIRD, this version of the proverb applies to Suffolk and her famous son ARTHUR YOUNG. Not a successful farmer himself, like many another who can write better agriculture than he can practice—his neighbors were by no means inclined to follow his precepts, and while in other counties proprietors were prompted by them to inaugurate great improvements, during his life they seem never to have met with much favor in his native district. It is perhaps no more than due to the efforts put forth by this eminent man, that we should notice very briefly what they were, and we could take no better time to do so, than when, having crossed the river Stour in coming from Essex, we stand upon the threshold of the county that gave him birth, and which is now farmed largely according to the principles he inculcated, and ready to acknowledge its indebtedness to them "for much of the progress that has been made in the cultivation of the soil and the economical application of labor."

Having succeeded to an estate, and, as Loudon expresses it, "impoverished himself by experiments," at the age of 26 Young's first volume, "The Farmer's Letters to the People of England," appeared, and four years later another series to the Landlords. In the interval he published the narrative of "A Six Weeks Tour" in the Southern Counties and in Wales, another of six months in the North, and a third in the East of England, besides several books upon practical and experimental Agriculture, making during this period a total of eight works in octavo, one of 2 vols., and two of 4 vols. each, and one of two quarto vols. His Tour in Ireland, Annals of Agriculture, &c., followed, and in 1787–8–9 he traveled extensively in France with the view of studying the cultivation, wealth, resources, and national prosperity of that kingdom—the results of which were published in 2 quarto vols. in 1792. A Board of Agriculture having been established, he was appointed its Secretary, and under the auspices of this body prepared a general Agricultural Survey of the counties of Suffolk, Lincoln, Hertfordshire, Norfolk, Essex, Oxfordshire and Sussex. His last treatise was on the "Husbandry of those celebrated British Farmers, Bakewell, Arbuthnot and Ducket."

With us, so many of whom have seen more or less of the different parts of our extensive country, by travel for one object or another, and all of whom are tolerably conversant, through the newspapers, with what is elsewhere going on—it appears strange in visiting a little island (comparatively) like England, to find that a vast proportion of the people have seen but a very limited part of it—that they have always been in the habit of confining their attention to their own local events and ways, and that they differ perceptibly in dialect in districts by no means exceedingly remote from each other. If such continues to be the case in this age of cheap travel and cheap reading, it can readily be imagined how much more it was so ninety years ago, and what an effect—what "a stimulus to improved practice," in Mr. Caird's words, must have been the means which were supplied by these Surveys of YOUNG, for comparing the practices of various soils and localities. It has been the great object of Agricultural Societies and writers, there as here, to get the farmers of different parts of the country well into communication with one another, and the confessed benefit conferred by Young's exertions, is an instructive tribute to the importance of this end.

I have been unable to turn to any general review of these books of Young's. The monument to his memory is of that kind, however, which proves most enduring, for it consists in his careful collection of such a mass of valuable facts. Thus we meet with constant references to him incidentally as an authority, and it is uniformly with a passing word of praise. Loudon remarks of his Tour in Ireland, that "it probably did more good than even the Dublin Society," and Cuthbert W. Johnson says that he was "perhaps the most popular author on Rural Affairs that England or any other country ever produced."

At Ipswich, the capital town of Suffolk, and the native place of Cardinal Wolsey, we come upon the river Orwell, the estuary of which joins that of the Stour at Harwich. Here the Orwell is navigable for vessels of some 200 tons, furnishing water communication for the benefit of several large foundries and machine establishments, at one of which, that of Messrs. RANSOMES & SIMS, we shall make a call as soon as time will allow. At present our destination is

Woodbridge, a thriving market town and port seven or eight miles to the north-east, where as we leave the railway, we shall meet a kind greeting from a gentleman whose stock we have already seen and admired at the Suffolk Agricultural Show, but whose farming will by no means prove the less interesting on that account. Seating ourselves in one of those handy two-wheeled carts so much more common in England, as the traveler at once notices, than they are with us, we are off at a pleasant pace—passing near the Melton station, where we see newly completed and convenient arrangements for auction sales—I think it was stated once a month—for the marketing and interchange of stock of different kinds, and thence away six or eight miles between fields of grain, now, the 2d of July, rapidly approaching "the full corn in the ear;" of mangolds in well-marked rows, and Swedes just proving with a sprinkling of green, that the sower has not sowed in vain; of land yet under the plow and harrow and roller, and probably soon destined to be drilled with turnips; of the stubbles freshly growing green again after the labor of the hay-makers, and of hedges or "fences" as the English call these walls of living green, just beginning to be trimmed back from the wilder growth of the past twelve-month, to the regularity of well ordered farm enclosures.

By and by our road carries us near a building of solid and antique appearance and considerable size, now occupied, we are told, as the Rectory, but supposed to have once formed the gateway only of the massive pile which in former days covered the grounds and bore the name of "Butley Abbey." A little farther, adding a feature to the farm-yard scene not often to be found in that sort of landscape, a sturdy old arch still marks one point in its extensive outline, and jolly round-sided Suffolk pigs are rooting about, where the Suffolk monks—perhaps with equal title to either epithet—used to receive the rents of the goodly lands over whose tithings they probably knew well how to preside, before the troubled times came when their strongholds were toppled over and their dominion passed into other hands. Entering a gateway, a few fragmentary remnants of old columns and sculptured walls, which the plow-share yet meets as it turns the soil near by, shrink back under the drooping shrubbery as if ashamed of their fallen state, and we stroll away from the path, upon the turf here and there cut out for a circle of flowers, a little absent-mindedly, until the presence of others not habited in the garb of the holy fathers, recalls the unmistakable fact that the days of their glory are no more, and that entire taciturnity, however appropriate for the cloister, and occasionally becoming to the American countenance, may sometimes, too, be quite misplaced.

— "You have some fine Short-Horns yonder," we therefore remark, raising our eyes to the pasture beyond the lawn. "How large a herd are you keeping?"

Perhaps twenty or thirty the answer runs, and subsequently we go among them and mark the "Bates blood" that flows in their veins, and find in "Wild Eyes" and others of the family, just that hearty thriftiness which bears witness to the capacity of the breed for flesh-taking when no extra care or forcing processes are employed.

We venture the inquiry it may be, "whether some herds have not been injured by feeding up the best for Shows, to the detriment of their further usefulness?"

Undoubtedly instances of this kind occur, but—argues in effect our host—it is the object of the breeding of the present day to develop such influences in the parent as are most likely to beget the greatest and quickest power of converting fodder into meat, and how are we to determine how well these requirements are met, if we starve our animals into the Show-yard? Let us avoid either *extreme;* but all the rules of the societies can't prevent my neighbor or me from wishing to show—not where, at some prospective period our beasts are going to fill out handsome and valuable carcasses, but where on good keeping they actually do at a certain age lay on that kind of flesh which will pay the feeder and the butcher. And no judge will be willing in his decisions, to be guided entirely by the lank anticipations of future fatness.

— I do not, it is very likely, do justice to Mr. CRISP'S reasoning in thus roughly mentioning the impression I gained from what he told me of his views; but I considered it worthy of record, as coming from a man of much practical experience, that he spoke boldly in favor of the custom which there are more ready to combat in words than in practice—of only exhibiting such animals as have been really prepared to "look their best." The question has been much discussed in the past, although it seems at present to be nearly set at rest by the almost uniform consent of breeders.

Butley Abbey is a farm of about a thousand acres, of which I understood that 230 perhaps were in wheat, 150 to 180 in turnips, 150 in barley, 150 in "layer" or clovers and grass, together with beans, peas, &c., while of the remainder a part is permanent marsh pasture, and the rest lies in open sheep walks. The latter are generally blowing sands, with not much herbage except the furze (gorse or whins it is also called) which serves probably to lessen or obviate the action of the wind. The bushes of this furze are eaten off by the sheep, which nibble away at the outer shoots until those in the center grow up beyond their reach, perhaps four or five feet high; it is nutritious, and other animals are said also to be fond of it. But the spines of the foliage are sharp, and require bruising before they can be eaten by cattle with any comfort, and the sheep must have become well toughened to them, one would think, to enjoy it—the plant in fact seeming scarcely less terrible in reality than it does when we read in the botanies that "it bears innumerable dense, roughish, green, furrowed or ribbed branches, spinous at the ends, and beset with large, compound, striated, permanent thorns; leaves few, scattered, small, awl-shaped, deciduous"—a description which I am sure it is fortunate the sheep cannot read, or they would be less likely than before to relish their forage. The engraving above shows the points of the herbage, as well as the flowers with which, earlier in the season than the time of my visit, it is profusely covered—presenting, I was told, a beautiful appearance, and giving the whole moor a golden hue. Indeed some one has written—

Common Furze—(Ulex Europœus.)

> "And what more noble than the vernal furze
> With golden baskets hung? Approach it not,
> For every blossom has a troop of swords
> Drawn to defend it."*

Of these moors the furze is a natural product, but I believe it is sometimes grown for fodder, while machines for bruising it are catalogued by the dealers. During the day the sheep stray about these unenclosed tracts, and with the aid of his dogs the shepherd collects them at evening to be folded. We went out at dusk for a walk over the farm, and saw a flock, unless my memory is at fault, numbering *sixteen hundred*, or thereabouts, and I was told that it is rarely the case in collecting even so many as this, that the dogs and shepherd leave behind a single one.

After a glance at one other feature on this farm that was a curiosity to me, I shall turn to my note book for a number of interesting facts which Mr. Crisp was good enough to give me during the day or two spent so pleasantly in his company.

Mr. C. Wren Hoskyns, the lively author of the "Chronicles of a Clay Farm," in lecturing two or three years ago upon the progress of agriculture, adduced the word *coprolite*, among other scientific terms, which he said were strange enough in the farmer's ears ten years before, although now commonly understood; and he gave, in proof of his statement, the fact that Mr. Huxtable had then narrowly escaped being reported in the newspapers as the introducer of "*coppery lights* into the dark places of agriculture!"

The material in question, which if it had not been for Mr. Hoskyns' untimely extinguishment, would have had a debut before the world so much more brilliant than its name could very literally authorize, has been largely found on Mr. Crisp's farm. The Suffolk crag and some other formations, abound in these coprolites—often so scattered as not to be worth exhuming—now and then occurring, as in the present case, in large masses; they are the fossilized excrements of extinct lizards (saurians) and other reptiles, and, as dug, washed and heaped up, no one in passing would suppose the pile to be anything more than ordinary gravel. They appear, however, oftener in cylindrical forms, and while they have the same water-worn exterior, one perceives on breaking them that they are quite different from the stones for which he took them at first. In use they are either ground or treated with sulphuric acid, as bones are, and contain, according to Way and Gilbert, from fifty-two to fifty-seven per cent. of bone earth or phosphate of lime. I understood their intrinsic value to be between $11 and $12 per ton, while they sell at different rates according to the state of the market. Between *four and five thousand dollars* worth had been taken out and sold from a single acre—so that the discovery of their value was not only a boon to English farmers in general, but in particular to those proprietors whose lands happen to have been a favorite resort for the reptiles of antiquity—possibly the rendezvous of those which were driven out of the sister island by the valiant St. Patrick.

The Sheep of this part of England, as I remarked when writing from the Show at Ipswich, are prolific mothers and good milkers, and the females are consequently in demand. Mr. CRISP has a herd of about 2,000 breeding ewes,* to which he puts a Leicester or South-Down tup. The lambs it is his practice to sell, the autumn after they are one year old, or indeed any time during that season according to circumstances, and the price received for them varies with age and quality from $7.50 all the way up to $15 per head. The lambs are dropped about March, and when they are ready to wean after harvest, are put out upon the stubbles to eat the "seeds" that were sown in the spring, and at night perhaps folded upon a turnip field as soon as the latter is ready. But Mr. C. keeps a great many sheep out a-boarding, as we might express it; that is, there are many smaller farmers, who do not have the means of keeping a large flock the year round, and who are glad to take in those of their neighbors both upon their stubbles and to eat their turnips. For the lambs thus sent out upon stubbles on other farms, about 3 cents a head per week is paid. The price paid for turnip land is in the neighborhood of 6 cents a week for each head, though it varies with the character of the crop, &c.; when it does not exceed this price, Mr. C. considers that there is room for profit to the owner of the sheep. Sometimes he has flocks at a distance of 50 miles or even more, and a great advantage of this method to the small farmer, arises from the fact, that while the few sheep he would want to keep might be all winter in eating his turnips off, if 500 or 600 come upon his fields at once, they are all cleared by Christmas and ready for plowing.

We walked through a field which produced a crop of wheat last year. Mr. C. had also obtained from it, what is called a stubble or "stolen crop" of turnips,—seed drilled in rows 18 inches apart as soon as possible after harvest, and the roots folded off this spring. He calculates the value of such a crop at about $7.50 per acre, for a fair yield will keep 20 sheep 6 weeks—an equivalent at the rate paid for turnips elsewhere to $7.20, while their manure upon the land is rated as worth about 3 cwt. of guano—more, probably, than the cost of sowing and cultivation. The latter consists in the use of Garrett's horse-hoe five or six times, according to the necessity of the case, and in one thinning and hoeing by hand, followed by a forking off of the weeds, costing about 50 cents per acre. This spring, after the turnips had been fed off, the land was scarified and plowed. Beets were sown about the first of May, after a manuring of from 8 to 12 loads of farm-yard dung per acre—the sheep-folds having supplied the additional fertilizing material, which, without their intervention, would have been purchased in the shape of artificials.

We have thus seen two crops in the system of rotation, the wheat and beets, with an extra bite of turnips for the sheep intercalated. On land where the last is not taken, the second year's crop would be turnips instead of beets. In either case, the roots are folded off along from autumn until spring, or otherwise harvested—the beets bearing the frost better and lasting later in the season than the turnips. I shall have occasion to refer hereafter to the fact that the quantity of beets grown in proportion to that of turnips seemed to be almost universally on the increase in Great Britain—of late years mangolds are said very generally to have given the better satisfaction of the two, and to have gained wonderfully in popular favor.

Sometime in March of the third year, the land is scarified for barley, with additional manure, if the sheep have not already supplied enough. Mr. Crisp drills in six to eight pecks per acre, and sows also twelve to fourteen or sixteen pounds of "small seeds," with rye grass, pretty much in the following proportion:

8 lbs. red clover.	2 lbs. white clover.
4 lbs. trefoil.	1 to 2 pecks rye grass.

The trefoil or yellow clover, as it is also called, is considered very valuable for sheep. If this "layer crop," as it is called, is far enough advanced in autumn, it is fed off that season a little; the next spring, at any rate, it is ready either for grazing or to come on for hay,—yielding of the latter an average of about two tons per acre—thus completing the rotation in the ordinary "four course shift."

In October the land is plowed, or earlier if necessary, having previously received a coating of manure. Mr. C. sometimes uses a haymaking machine to spread his manure with; hereafter I shall be able to give a cut of this implement, as well as of the scarifier referred to above. Wheat is then sown, coming forward as the first crop in the succeeding quadrennial series; and here I may close for the present, for I find that we should have to linger longer than time will now permit, in order to see the rest of the stock, and take a drive to the other farms under our host's cultivation, in one chapter. L. H. T.

* In another letter, we shall see that Mr. CRISP occupies two other farms beside that of "Butley Abbey."

INFLUENCE OF THE SURFACE SOIL.

There is something remarkable in the influence on vegetable growth, of the upper stratum of the soil. Take, for example, its effect on the growth of young trees. If a young peach tree, for instance, is allowed to stand in a good soil, which from neglect becomes hardened and crusted on the surface, it will make but a few inches growth in a single season. But if, instead of becoming crusted, the surface of the soil for only an inch or two downwards, is kept mellow, and daily stirred, the growth of the tree will be more than double, and sometimes more than quadrupled, although the roots may all be below the stirred portion. A more striking difference occurs when the surface is allowed in one instance to become coated with grass, and in the other is kept mellow. Although the roots of the grass extend *downwards* but a few inches, yet we have known this mere surface-coating so to retard the growth of large peach trees, that they would not make more than three or four inches growth, while similar trees, standing in mellow cultivated ground, grew from two to three feet in a season. The roots of these trees were mostly a foot below the surface.

We do not propose here to discuss the theory of this remarkable surface influence, but merely to point out the facts, and to suggest some important practical hints.

Manure for trees and crops operates in two important ways. The first and most obvious is by its direct supplies to the small rootlets in the soil. To afford such supplies in the best manner, it should be finely pulverized, and minutely diffused through the soil at just such a depth as

the roots of the trees and crops extend—neither wholly buried deep, nor left wholly near the top—but be intermixed through every part. This mode we do not propose to speak of at present. The second way is its influence on the crust of the surface, as already alluded to. On very light sandy or gravelly soils, this influence is less important, so far as the mellowing effect of manure mixed with the surface is concerned. On such soils, there is little to hold or retain its fertilizing portions, and it is soon dissipated and lost. Straw or coarse litter, strictly as a mulch, is better here than manure merely. But on clayey soils manure becomes highly advantageous. It combines with and mellows the crust in a most efficient manner. The great advantage which it possesses when thus applied to clay soils is not only in softening the hard crust to which such soils are liable, but in the ready combination which is effected between the clay and the volatile manure.

There are various ways in which surface manuring and mulching with straw benefit crops. Among others a most important one is shelter in winter. The soil about young trees and plants, if perfectly bare and hardened by exposure, radiates heat upwards towards a clear sky on a cold winter night with great rapidity. A very thin coating of manure or litter is a great protection. Hence the benefit derived from the *winter mulching* of young fruit trees. In severe regions, the difference between the success and failure of dwarf pears, has sometimes resulted from this alone. Exposed crops of winter wheat have been saved from winter killing by surface manuring in autumn with thin coarse material.

The protection which such a coating affords the soil and the plants upon its surface from severe and cutting winds, is frequently of great importance. A screen of trees, or a high, tight board fence, often saves young trees or plants from destruction; and next to such a screen is a mantle covering the bare earth.

The great practical question arises, how much and how frequently is it most profitable to manure the surface? What proportion of the manure applied should be diffused through the soil, and what proportion left at the surface? At what season of the year should the work be performed? We have tried but a limited number of experiments to determine those points, and those of not much accuracy; but their general teaching was in favor of autumn or early winter manuring, if to remain upon the surface of untilled land, or to be plowed in in the spring; and on tilled clay lands a small portion of the manure left on the surface, and only harrowed in in the spring or early summer, has had a good and sometimes excellent effect. On light soils, surface manuring during the summer has proved of little benefit, even if harrowed into the top soil. We believe the subject is one worthy of further examination.

HINTS ON FARMING CLAY SOILS.

Nearly two years ago (Co. Gent., May 20, '58) we called for light on the question of the best system of culture and cropping for improving a clayey soil, but so far as any definite reply is concerned, we called in vain. There are now, as then, scattered hints in the various agricultural publications of the day, but no writer has taken up the subject for a full and exhaustive discussion thereof. We do not feel competent to the task, but the want above stated has incited us to prepare the following hints and suggestions, originating in our own experience, or gathered from a variety of duly acknowledged sources, thinking them worth thus laying before our readers.

Thaer says, in his *Principles of Agriculture*, that "Land should be chiefly valued according to its consistence; the greater the degree of this quality which it possesses, the nearer does it approach to first class land; but the smaller the proportion of clay, and the larger the quantity of sand which enters into its composition, the more rapidly does it fall in value." Experience as well as history confirms this remark as correct. All the great deserts of the world are composed mainly of shifting sands. The most fertile soils, wherever found, contain a large portion of clay. Clays, however, differ largely in agricultural value, as may hereafter be shown.

One reason for the valuable character of clay soils, is found in the fact that they contain, more than any other soil, the elements of fertility within themselves. They are usually more or less productive, if rightly cultivated, without aid from stimulants or manures, but acknowledge such aid very gratefully when received. A recent writer says "they are deposits of various earthy compounds mixed in many cases with organic matter, and frequently require only aeration to render them productive."

As an illustration of cultivation or continued cropping without manure, we may refer to the Lois Weedon experiments of Rev. Mr. Smith of England. We find them noticed very opportunely for our purpose in a recent issue of the *Boston Cultivator*, and quote the conclusion of this paragraph therefrom. In these experiments, which have now continued for twelve consecutive years, the same ground has been cultivated in wheat, without manure, giving an average produce of thirty-five bushels per acre, and with as good a yield now as when the experiment first commeneed. "The method is to till the land by the spade to the depth of the subsoil; plant three rows of wheat, with a space of one foot between each, and then leave a breadth of three feet, which is used as a fallow and kept open by the spade. When the crop is taken off, the fallow spaces are seeded, and the ground previously occupied left vacant; thus in reality producing wheat on half the ground every year."

While copying the above, we remember an exposition of this system given in the *Mark Lane Express* last summer, and on referring to that journal find that light land, *dressed with clay*, has also produced uniformly excellent crops of wheat under this system. So that clay is not only valuable as an original component of the soil, but as a manure for soils in which it is deficient. It is stated as above, however, that green crops—beans, roots and cabbage—have required animal manures to keep up the productiveness, not finding in the clayey soil all the elements required. We noticed some years ago a detailed statement where corn on sandy land was manured with a shovel full of clay to each hill, and the increased product was considerable—equal in fact to that from hog manure applied in the same manner. The soil on which the Lois Weedon experiment is in progress, is "a natural wheat soil"—a clayey loam with a subsoil of yellow clay. The depth to which it has been dug is sixteen inches, and this only for a single year in the course. It is now found that the staple soil is richer than the subsoil, and in fact gives better crops of wheat than at first. Taking all things into account, the experiment goes far to show that clean and frequent cultivation, with abundant room for the crop, goes far on a clay soil to supply the want of manure. The alternate strips of fallow have time for storing up the ærial food which their mellow and friable state allows them to obtain. On a soil deficient in clay no such result would follow, sand having no attraction for ammonia, and but slight power to hold it when artificially applied.

The practical lesson taught us is, that to farm clay soils profitably we must take full advantage of the property they possess of attracting and holding the elements of fertility supplied by atmospheric influences—air, water and light. To this end they must have exposure to the air, freedom from stagnant water, and a course of tillage which shall keep them in a comparatively mellow state. The natural characteristic of clay is to attract and retain water, to harden in drying, and to become impervious generally to all ameliorating influences, and the more so the longer they remain undisturbed. This, however, depends more upon their state of *drainage* than upon anything else, and this naturally accords with the amount of clay present in the soil, and the porous or non-porous character of the subsoil.

Other hints and considerations will be added in future numbers, and we invite correspondents to join with us in the more practical discussion of the subject.

[For the Country Gentleman and Cultivator.]

Management of Meadows—More Grasses Wanted.

MESSRS. EDITORS—It is generally admitted that good grass crops are one of the foundations of good farming, and this being the case, the importance of more attention being given to this subject will be at once apparent. A very excellent article upon this subject appeared in the *Country Gent.* of Aug. 4th. It contains much truth in a nutshell, and it is now alluded to in confirmation of the importance of top-dressing grass lands. On this point you remark with truth, "that even were it to be plowed the next season, for a grain crop, the manure could not be better timed or applied." I have the past season, by top-dressing the previous September with 15 loads of stable manure per acre, doubled the yield of timothy and also of orchard grass, as compared with portions of the field unaided in this manner. I have also trebled the product of clover and blue grass, by an application of 10 bushels of unleached ashes, costing but $1.20 per acre, and have seen the action of this cheap fertilizer on these grasses with very decided effect for three successive seasons—200 lbs. of Mexican guano has had an improving effect for two years, applied about the 1st of April.

Mr. Flint, in his recent valuable work on grasses, states the well-known fact that in England they rely more upon a mixture of grass seeds, than upon a variety sown separately.

In the several tables Mr. Flint gives of mixtures of seeds, it is observed that there are none containing a less weight than 35 lbs. for one acre, but the majority contain 45 lbs. seeds. Therefore, if this be the weight of seed required for an acre, we have in most parts of the United States, been up to this time laboring under the error of sowing too small a quantity. In the middle States, the usual amount of timothy sown per acre is one peck, or 11 lbs.; (the seed of this grass weighing 44 lbs. per bushel,) and thus, according to Mr. F., we have been sowing but one-fourth of the necessary quantity. With orchard grass, two bushels per acre has been considered liberal seeding—this weighing 12 pounds per bushel. We have therefore been using but little more than half the required amount. Cannot some of your practical grass growers enlighten us upon this important matter?

We want, to sow with timothy, some valuable grass, or several varieties, that will take the place of it when it runs out, which it will do in a few years. Red top would in some measure answer this purpose, but there are no doubt other varieties that could be brought to aid in the matter, which could be suggested by some of your many hay-growing readers.

The difficulty with that valuable hay and pasture forage, orchard grass, is its propensity to grow in tussocks, leaving so much land uncovered, and thereby reducing the product perhaps one-half. The great desideratum with this grass would be to obtain a variety ripening at the the same period, and which would fill up the intervening spaces. By this means the crop of hay might be doubled, and leave as good aftermath for grazing. What variety would suit best to sow with orchard grass? A SUBSCRIBER.

Maryland, Dec. 30, '59.

P. S.—Since the introduction of mowing machines into this neighborhood, 10 years since, our timothy meadows do not run out so soon as they did when mowed with the scythe. The reason is that the mower leaves a longer stubble—say three or four inches—while the scythe cut so closely as to destroy the roots of the grass.

[For the Country Gentleman and Cultivator.]

THE CLINTON AS A WINE GRAPE.

MESSRS. EDITORS—Your notice of the Clinton Wine reminds me of some I made a few years ago, which was pronounced by physicians an extra fine article. Your correspondent will find it equal to the best Port, such as we could get twenty-five or thirty years ago, without the addition of any sugar, but it requires time to lose a harshness which some dislike at first, but which pucker, as some call it, becomes agreeable in a little while. I have not the least doubt but that the Clinton will yet be extensively planted for wine. It is one of the hardiest, most vigorous and productive vines we have—knows no disease, and to my taste is quite an agreeable eating grape when fully ripe, and will keep till mid-winter without any care scarcely. I am buying hundreds for my own use. S. M. *Calmdale.*

Statistics of New-York Cattle Market for 1859.

We quote the following interesting statistics from the New-York Tribune:

139,000,000 POUNDS OF BEEF CONSUMED IN ONE YEAR—OVER $12,000,000 FOR BEEF.

The annual tables of the great metropolitan market of live stock will be read with interest by all who are engaged in the production, and they should be by all who consume the flesh of butchers' animals. These tables are particularly valuable to those who are engaged in the business of buying and bringing live stock to market, and to all who handle the cattle or meat between the producer and the consumer.

We have had something over seven per cent. increase in the number of bullocks, but the general opinion is that the weight is from 25 to 50 lbs. each less on the average than it was in 1858, owing to the enormous influx during the fall and early autumn of small, lean stock. We have estimated the average net weight of all the bullocks brought to market during the year at 6½ cwt., and adding the cows, which eventually nearly all go to the butcher, we have 214,764 head, which at 6½ cwt. each, will give 139,596,600 pounds of beef. We find that the average price of the whole year is 9¾ cents a pound, net, which will make the sum of $12,738,189.75. This would make an average per head of $59.32, and a fraction. Estimating all the bullocks sold at an average of $60 a head, it will make the sum of $12,885,840.

It is curious to observe that of the 154,878 cattle reported for sale at the great weekly markets in Forty-fourth street, only 2,413 head arrived on foot. A few years ago none arrived in any other way.

There has been a considerable increase of the number of cattle reported from this State, and a large falling off from Illinois. The increase in New-York is made up wholly of lean cattle, sent to market to save feed the present winter, as hay is unusually high. The falling off in Illinois cattle is owing to the failure of the corn crop in 1858, by which farmers were unable to fatten their stock for market. This deficiency will be made up in 1860, unless we are greatly mistaken in the signs of the times.

We have made some useful comparisons, and commend others to study these tables, and compare them with former years.

The deficiency of corn in the West last winter has had a very marked effect upon the Hog market, reducing the number 150,000 head below the receipts of 1858. Of Sheep this year there has been an increase of 50,000 head over 1858. On the whole, it must appear from these figures that we are decidedly a meat-eating people. It must be understood, however, that this market supplies not only New-York City and Brooklyn, but in part all the cities and villages, and many of the country residences, within a radius of sixty miles. It is said that a good many of the animals included in our weekly reports of the Cattle markets go back again to the farmers. We have to answer that more than an equal number come to the city ready dressed, so that the aggregate given as our demand upon the country to supply our meat-eating propensities, is not too large.

From the tables alluded to in the above, we gather the following facts. The arrivals at the New-York market during the year 1859 were:

Beeves,	154,878	Sheep,	504,894
Milch Cows,	9,492	Swine,	399,685

The following states furnished the Beeves:

New-York,	42,085	Virginia,	1,001
Pennsylvania,	3,299	Iowa,	3,997
Ohio,	35,153	Connecticut,	818
Indiana,	8,692	New-Jersey,	542
Illinois,	35,171	Michigan,	5,334
Kentucky,	15,188	Canada,	3,309

Comparative Prices—1858 and 1859.

PRICES OF BREADSTUFFS IN NEW-YORK, DEC. 31.

	1858.	1859.
Superfine State Flour, ₽ bbl.,	$4 20@$4 40	$5 20@$5 30
Extra State Flour, ₽ bbl.,	4 95@ 5 20	5 40@ 5 50
Superfine Western Flour, ₽ bbl.,	4 30@ 4 65	5 20@ 5 30
Extra Western Flour, ₽ bbl.,	5 50@ 8 50	5 35@ 7 25
Canadian Flour, ₽ bbl.,	5 30@ 6 50	5 60@ 6 80
Southern Flour, ₽ bbl.,	4 75@ 8 75	5 45@ 7 25
Rye Flour, ₽ bbl.,	3 25@ 4 10	3 60@ 4 40
Corn Meal, ₽ bbl.,	3 40@ 4 00	3 60@ 4 20
White Wheat, ₽ bush.,	1 20@ 1 55	1 35@ 1 55
Red Wheat, ₽ bush.,	68@ 1 27½	1 18@ 1 30
Corn, ₽ bush.,	72@ 85	86@ 89
Rye, ₽ bush.,	75@ 78	88@ 90
Barley, ₽ bush.,	70@ 92½	76@ 88
State Oats, ₽ bush.,	49@ 52	46@ 47

PRICES OF PROVISIONS IN NEW-YORK, DEC. 31.

	1858.	1859.
Mess Pork, ₽ bbl.,	$17 00 @$17 62½	$16 06¼@ — —
Prime Pork, ₽ bbl.,	13 00 @ 13 40	11 50 @ — —
Cut Meats, ₽ lb.,	— 6¼@ — 9¼	— 6½@ — 10
Coun'y Mess Beef, ₽ bbl.,	7 75 @ 9 00	5 08 @ 5 25
Lard, ₽ lb.,	— 11 @ — 11¾	— 10¾@ — 10¾
State Butter, ₽ lb.,	— 16 @ — 26	— 15 @ — 23
Cheese, ₽ lb.,	— 8¼@ — 9½	— 8¼@ — 11¼

ADVERTISING GRATIS.—We have several *advertisements*, in the shape of communications, offering choice seeds in exchange for other choice seeds or a few postage stamps, which justice to ourselves, and those who advertise their goods regularly, compel us to decline. All who have valuable seeds, plants, implements or stock for sale or exchange, will find our advertising pages an excellent medium through which to apprise the public of the fact.

PRAIRIE GROWN TIMOTHY SEED.

The seed market is now largely supplied with timothy seed grown upon the Illinois prairies, and it is usually a very perfect article. The weeds which often crowd our meadows, are as yet almost unknown there, and good crops of fine quality can be grown and harvested at but trifling expense. A friend tells us of an instance where six hundred bushels were raised upon eighty acres, and harvested with a reaper, and then threshed and cleaned by machinery—paying a very handsome profit. He has given considerable attention to the subject, and commends the prairie grown seed as perfectly free from noxious seeds—an important consideration to every farmer.

The land is usually cropped with different grains after the first breaking, but it must not be cropped too severely, or the soil will become somewhat foul, and worn so that the grass seed will not catch as well as upon newer land. The seed is generally sown with spring grain at the rate of a peck per acre, and rolling will usually sufficiently cover it, as well as better fit the ground for the employment of machinery in harvesting. Perhaps two crops of seed is as many as can be profitably taken off; then cut one year for hay, then plow up for other purposes, following here as in most places, a system of rotation.

Timothy must be cut for seed as soon as it fairly begins to ripen, or it may be badly wasted by winds or beating showers. As soon as the seed is ripe at the upper end of the head, it may be cut, and will then perfect its whole product of seed in the shock, while drying. Let it be bound in small bundles and set up immediately after the reaper; it will cure in a few days, and should then be secured in the barn or stack, or better be threshed at once. In stacking particular care should be taken to secure from injury by rain and damp, or it may suffer loss which would go far toward providing a roof to cover it. It is also, it should be remarked, an advantage of early cutting that thus a fair quality of hay is secured.

The best soil for timothy is moist rather than dry, but it flourishes well on any good wheat soil. We should be loth, however, to crop land which produced wheat well, with timothy, as it would injure it for the production of this grain, taking, as it does, nearly the same elements from the soil. But upon the newly opened prairie farms of the west, it is generally useless to talk of exhausting the soil; present profit is far more considered than the wants of the future. It is too much so everywhere.

TESTIMONIAL TO JOHN JOHNSTON.

In the *Country Gentleman* of Dec. 29, it was stated that a number of gentlemen interested in the promotion of the agriculture of the state, had presented to JOHN JOHNSTON of Seneca county, a testimonial of their appreciation of his services in the cause of agricultural improvement, consisting of a massive silver pitcher and a pair of goblets, embellished with appropriate agricultural emblems. They were forwarded to Mr. JOHNSTON by HENRY S. OLCOTT of the N. Y. Tribune, who has sent us the following acknowledgment from Mr. Johnston:

NEAR GENEVA, 27th Dec., 1859.

HENRY S. OLCOTT, Esq.: *My Dear Sir*—I received your letter of the 24th inst. and also the rich Christmas Gift mentioned therein. Truly, I may say that I was both surprised and delighted—surprised, because the present was entirely unexpected—delighted, for I suppose there is no man that lives who is not pleased by a compliment to his opinions and his way of showing them forth. More especially when those opinions at first met with much opposition and some feeling, and have only come to be admitted as right, after an almost obstinate abiding by them on his part. And it very much gladdened me—indeed it did, that the merits of a system of farm management—its stocks and its products, had been so well exhibited as to attract the attention of so many intelligent agriculturists as to be thought worthy of such a magnificent gift.

Politicians and heads of mercantile and manufacturing establishments, and captains of packets, are not unaccustomed to such reward for conduct or exertions considered meritorious; but I know not any practical farmer who has ever attracted the notice of his fellows to his undertaking and his management by their fitness and good results, so as to receive such a testimonial; and it very much pleased me that it was to a farmer, for his ordinary day by day and year by year management, that this has been done; and I hope it will stimulate others in like position with myself, to exertions and experiments in improving their farms and farming operations, when they know that the eyes of farming men are looking about to discover, and their tongues ready to praise efforts in this direction. For I feel sure that with an efficient system of underdraining—a far more liberal method of feeding the cattle and sheep—a more plentiful manuring, and a higher state of general farm culture, the American Farmer may place himself in independence, and push forward his class to the position it ought to occupy—the front rank of human society. It is the farmer that puts the bread in the mouth of the rich and the poor, and feeds alike kings, princes and beggars; and should the farm labor of the land cease from May till November for but one season, dire would be the calamity to the inhabitants of this globe.

I have for many years looked upon the occupation of the farmer as of vastly more importance than that of any other human being—not the mere drudging occupation of the daily labor he pursues, but that labor industriously followed, directed by forethought, and carried on with a lively and intelligent eye to all the teachings of the daily and yearly experience he has with the soil beneath his feet, the elastic atmosphere about him, the insect life that swarms his fields, and the useful brutes under his control. For plenty makes peace, and he that raises plenty is a peace-maker, and it is in peace and plenty that man must reach his highest development, and I know of no land on the face of the earth, where so great results in husbandry and the elevation of the husbandmen (and men in general) may be reached, as in the United States.

But I must not delay longer giving you and the gentlemen connected with you, my hearty thanks for your kindness and consideration in rendering me this gratifying compliment. May success attend you and them all in the pursuits which we love and follow, and in every way and effort in which I may assist in pushing those pursuits towards perfect results, I am with great respect and esteem, your and their obedient servant. JOHN JOHNSTON.

[For the Country Gentleman and Cultivator.]

FARMING AT HORNBY.

Culture of Potatoes and Carrots—Management of Grass Lands—Irrigation and Draining—Seeding.

EDS. COUNTRY GENTLEMAN—I came to this country seven years since, to see the country and purchase some land in Missouri and Iowa. On my first visit, and every subsequent one, I made a visit to Hornby, to see a farm that has been made out of the forest in the last thirty years, and a farmer with whom I intend in 1861, to finish my agricultural education, at the age of seventy—if I should live until that time,—and take four of my grandsons with me, and stop from March to December, and if possible educate them practically, that they may not only farm well but cheaply.

I have had some experience with the agricultural schools of Great Britain, as well as several of the best on the Continent, and am constrained to say that the art is very imperfectly taught at those I have visited, compared with Hornby, where agriculture is understood practically. The

Principal understands what his soil lacks for all the plants he grows, and applies the deficiencies with skill and profit. He has no use for guano, poudrette, bone-dust, or any of the popular commercial manures of the day; yet the most of his crops, on his hilly, cold, thin soil, are better than can be found on the richest land in Europe or America. As much as we boast of our root crops in England, there can rarely be found in her Majesty's Government, or at any of the government trial-fields of Continental Europe, such a field of potatoes or carrots as on this farm.

The manner of his culture of potatoes is simple when understood. After the ground is put in order, his furrows are made with a wide plow that runs deep by going twice in the same furrow, turning the furrow each way. Then a subsoil plow is run by the aid of three horses in each furrow; then a machine which he sets so as to make two small furrows in the main furrow. The machine has four small plows made fast to two pieces of timber drawn by a horse. The two forward ones are placed so as to throw the mold out with a wide flat share that runs under the soil; the two hind ones are set so as to turn the mold into the furrows, making a place on each side of the furrow for the potatoes, so that the plow which is used for plowing in cannot disturb them when plowing them in, the potatoes being planted zig-zag on each side, at twelve inches apart, making two rows in the same drill. They are then rolled down with a heavy roller, and dragged until they come up, when the horse-hoe and shovel-plow are freely used. Then the subsoil plow is used with three horses twice between each row, which makes deep, mellow earth sufficient for three or four plowings with a double mold-board plow; and in case of a drouth, as there was last summer, he attaches wings to these plows, and raises the mold as high as he chooses, the work being done with horse-power and machinery. As he does not use a hoe, the furrows being exactly straight, they can be dressed with the plow better than is usually done with the hoe, and his potatoes are perfectly free from weeds.

He substitutes the subsoil plow in cultivating his carrots instead of the spade, which saves nine-tenths of the labor. He usually plants them late in the fall.

His mode of draining and irrigation is so far in advance of anything that I have seen elsewhere, that I wish to say one word, that those who lack hay may profit by his teaching, as it is so unlike anything that I have ever seen or heard of. He can irrigate almost anywhere, and in this lies the great secret of his enriching his land. By drawing the water to a given point where he makes a pond, which he plows when dry and cultivates when the water is in, and makes it thick as mud, and runs that on to his meadows and places along the roadside, and runs the hard-pan (or clay) on to his grass land. There is not a stream running on the farm that now runs where it formerly did. He has changed all the channels, and carried them to the highest ground possible, and used them to enrich his land. He showed me where he run on five hundred cubic yards of water in one day, by the use of two teams to plow and one to cultivate, besides leveling down a bank. He says, and I have no doubt of the fact, that clay run on to meadows is better than even barnyard manure, for the reason that the latter makes it grow more coarse and more likely to fall down, while the clay makes a solid firm growth, if put on with skill, so as not to rot the sod, which is too often the case even in Italy, where they have practiced it for the last 2000 years, and where they convey the water from rivers in canals, and have accomplished wonders, but I saw no such results, or the entire character of the soil so changed for the better, as on the hills of Hornby, where some as good alluvial soil has been made in the last seven years, as can be found on any of the river bottoms, where there is not even a spring or running brook on the farm that does not head on the same. There is a know-how to do everything, and when and where to do it. To say the least, I saw ten acres of meadow this unpropitious season, the best I ever saw in any country. The timothy and redtop stood even all over it, five feet high. I measured several stalks in different parts, that were 5½ feet, where no manure had ever been put, and have no doubt there was more hay grown on it, than on 100 acres of the common meadows of the country.

The manner of seeding down lands, like most other things, is peculiar to himself. Every grass seed is coated with tar, (as every other seed is that is sown or planted,) and rolled in lime or plaster, which ever is best adapted to the plant. The grass seed is then sown on the newly cultivated ground, and only rolled after sown, if sufficiently dry to use the roller, and before the roller passes over it. If there are any sods of blue grass that have not been killed by cultivation, or have not been set out by the plowman, they are set out before the roller, with a hoe, and they, as well as the seed, never fail to GROW.

Let any farmer visit this farm in July or August, and he will see one of the most beautiful sights I ever saw, in the matured grass, the growing roots, and the ripening corn, and all this accomplished with one man to the 100 acres, as nearly every thing is done with machinery and horse power. The machinery is much of the farmer's own making or invention, among which is his drain plow, with which he makes drains for two cents per rod, that are quite as good on his clay soil, as those that cost a dollar.

I am now convinced more thoroughly than ever, that there is more in good farming than in good land, and to repeat his own language, a farmer must not only be a working but a thinking man, and above all things else, an observing man, as he can learn from the wild plants of nature that grow on his soil, what it is best adapted to, and what application is necessary to make it productive, better than from all the chemists on earth. E. G.

St. Louis, Mo.

TOP-DRESSING MEADOWS.

EDS. CO. GENT.—As I see the subject of top-dressing meadow land is receiving considerable attention among your correspondents, I will throw in my mite, by giving my experience in top-dressing.

I have a piece of meadow, about six acres, that I seeded to timothy in the spring of 1856, after barley. It being a very dry season, it came in thin. The next season I mowed it, and got about half a ton to the acre. It was old land, clear from stumps, and rather a hard clay subsoil. Well, I concluded I would try top-dressing it with manure. So the next winter I wintered twenty cows and four horses, all of which I stabled, and every morning through the winter, after my stock were let out of the stanchions, I would take my team and sled, and take up the manure that had been dropped through the night, and haul it out on to the meadow. I left it in heaps as even as I could. In the spring, as soon as it thawed out, I spread it evenly, and the result was the next haying I cut full two tons and a half to the acre, and it continues to do about the same yet. Since that, I have tried other pieces with the same good results. E. ROZELL. *Bradford Co., Pa.*

AN AMERICAN AMONG THE ENGLISH FARMERS.—It often affords us pleasure to notice the accounts of the warm reception and hearty good feeling which is extended to distinguished Americans while visiting the mother country, by the lords, noblemen, and members generally, of the agricultural societies of that country. The prejudices that once existed between the citizens of America and those of England, seem to have given place to that brotherly regard that should ever characterize the intercourse of members of the same great family, and speaking the same tongue. These friendly visits and the interchange of thought and sentiment among the farmers of these two great nations, are productive of universal good.

We have recently met with several notices from foreign journals, of the marked attention with which our fellow-citizen and co-laborer in the cause of agriculture everywhere received, on his late tour through England. We allude to LUTHER H. TUCKER, Esq., of the *Albany Country Gentleman*. In attending various gatherings of farmers' and agricultural societies, in Great Britain, Mr. Tucker was often called upon to respond to toasts and sentiments, highly complimentary to him, and to the country which he represented.—*St. Louis Valley Farmer.*

Beans and Indian Corn for Milch Cows, &c.

R. H. Brown, of Greece, informs the editor of the Genesee Farmer, that he fed his cows early last spring, with three pints each per day of Indian Corn and white beans, ground together, in equal parts. He never had his cows do so well on any other food; they gave a large quantity of milk, and the calves were the finest he ever raised. He says he shall sell no more beans, but feed them to his cows.

Indian corn contains a large per centage of oil, starch, sugar, and other carbonaceous or fat-forming principles, and it is thought to be more productive of fat than of milk, when freely fed to milch cows; while peas, beans, and vetches, (according to the statements of some writers,) contain three times as much nitrogenous or milk and flesh forming matter as corn.

To render the largest possible amount of the nitrogen of peas, beans, &c., assimilable, there must be, in the food, a corresponding amount of *available carbonaceous substances;* but there is a deficiency of these substances in peas, beans and vetches; consequently, a large portion of their nitrogenous constituents—the true flesh, milk and wool forming principles—are not, when fed alone, assimilated, but voided in the excrements. If the above views are correct, they explain the good effects resulting from Mr. Brown's corn and bean meal mixture.

Beans are, doubtless, a valuable feed for milch cows. In a late number of the London Gardener's Chronicle, Mr. McAdam, of Staffordshire, who keeps a hundred cows, says, in his experience in the dairy business: "After having tried various methods and different sorts of grain, as oats, wheat, barley, Indian corn, oil cake, rape, &c., I decidedly prefer bean meal, both for quantity and quality of milk and butter." Bean straw, when properly prepared, is a valuable feed for milch cows. Mr. Horsfall says: "Bean straw, uncooked, being found to be hard and unpalatable, it was steamed to make it soft and pulpy, when it possessed an agreeable odor, and imparted its flavor to the whole mass. It was cut for this purpose just before ripening, but after the bean was fully grown, and in this state was found to contain nearly double the amount of albuminous matter (so valuable to milch cows) of good meadow or up-land hay."

Whether some of the varieties of our field or garden beans, would be more profitable to grow for feeding purposes, in preference to the English field beans, or not, I have no means of ascertaining. In the Co. Gent. of 25th of last August, it was stated that Mr. C. S. Wainwright, of Duchess county, "had been raising English beans for cattle feeding. His crop last year was successful, and this year it promises a very gratifying yield." Mr. W. is well known as one of the most successful and largest breeders of North Devons in the United States.

Mr. Wainwright would confer a great favor upon many of the readers of the Co. Gent., if he would, through the columns of that paper, favor them with the result of his experience in the culture of the English bean, and the feeding value and profit of the English bean, when contrasted with Indian corn, oats, the common field bean, roots, &c.

Some weeks since, John Couch, Esq., of Warner, N. H., who is one of the most successful growers of fine wool in that section, purchased in Boston 60 bushels of white beans, of fair quality, for feeding to his sheep. They were put up in flour barrels, and cost him at the Warner Railroad depot, just one dollar per bushel. Corn is worth one dollar and ten cents.

And now the question comes up—Will it not be more profitable for Mr. C., to have an equal number of bushels of corn mixed and ground with the beans, than it will to feed the bean meal alone? If the views advanced in the third paragraph of this article are correct, it certainly would be better to give equal quantities of bean and corn meal, even if the corn should cost him one dollar and fifty cents per bushel, for then his feed would possess, in nearly the right proportions, the necessary requisites for the greatest production of "fat, muscle, wool, and milk," and a much larger proportion of the nitrogen of the bean would be assimilated, instead of passing off in the excrements.

It has been believed by some persons that none but animal food, milk and meat, contained all the elements required for the support of life; but such an idea is erroneous, for vegetable substances—the grasses, grains, fruits, nuts, roots, tubers, &c.—contain all the elements, and in most cases in nearly the same proportion as they are found in animals. Now all these foods possess, in animal nutrition, a three-fold value—1st. Bodies containing nitrogen, like the *gluten* of corn, wheat and oats. When the flour of wheat is made into a dough, and this dough is washed in water upon a fine sieve, a milky liquid passes through, from which starch gradually subsides; but on the sieve, when the water ceases to go through milky, there remains a soft, adherent, tenacious and elastic substance, which can be drawn out into long strings, has scarcely any color, taste or smell, and is scarcely diminished by washing either with hot or cold water. This substance is the *gluten of wheat*; and in cabbage and many vegetables there are compounds termed vegetable albumen. In peas, beans, and vetches, there abounds a substance termed legumin, in composition nearly identical with gluten and albumen. These are called the nitrogenous bodies of vegetable food, as in their chemical qualities they contain from 15 to 20, or more, per cent. of nitrogen, and are nearly identical in composition with the muscle, (lean meat,) of animals; the casein or curd of milk, and the albumen or white of eggs; and, from their solution in the blood, form the tissues—muscle—the actual organism.

2d. Bodies or portions of the food destitute of nitrogen, as the starch, sugar, gum, and woody fibre, as also the oil of seeds, nuts, &c. They consist chemically of carbon, oxygen and hydrogen—the two last, in the same proportions in which they form water. As the above named substances consist so largely of carbon, they are usually termed carbonaceous portions of food, and by their decomposition or digestion they afford the necessary heat to the animal body. When fed in quantities larger than needed for the keeping up of the required temperature of the system, the overplus, or a portion of it, goes directly to the fat, for it is well known that cattle, hogs, sheep and poultry can be fattened on potatoes, which largely abound in starch—but still those varieties of food which contain the most oil, like Indian corn, oil and cotton-seed cake, fatten animals quickest; and recently, in England, linseed and cod oil have been somewhat extensively fed to fattening cattle. A farmer there fed a pair of North Devon oxen upon linseed oil and barley straw cut into chaff and mixed with a pint of oil per day. "The said oxen were not only fat outside, but full of fat within."

"The organic food must then, in order to meet all the wants of the animal, contain starch, sugar or gum, fatty

matter or oil, and nitrogenous compounds. These are all organic bodies. The first three are needed to furnish carbon, to be consumed in respiration for the purpose of keeping up the animal heat, and also for making fat in case of necessity. The oil is of value for forming fat directly, and the nitrogenous substance for the production of muscle, cartilage, &c."

Analyses clearly demonstrate that in a given weight of peas, beans or lentiles, there is more aliment or muscle-forming material than in an equal weight of any other vegetable food. But to make the most of the aliment of peas and beans, they require additional carbonaceous matter. Good fat pork is just the thing for this purpose. The Labrador fishermen and the lumbermen of Maine, understand this matter, and vegetable and animal physiology tells of the why and wherefore of it.

3d. There are the inorganic parts of food, the potash, soda, *phosphate of lime*, and others, which constitute the ash of the plants, grains, &c. In all animal food, phosphate of lime should be prominent, in order that the animal may form its bones strong and of full size. No other phosphate than that of lime, will answer the purpose of making bone. You can no more manufacture bones from phosphate of potash, soda, iron or magnesia, than you can gold dollars out of an old brass kettle. L. B.

Profits and Diseases of Poultry.

MESSRS. EDITORS—I herewith send you my first year's experience in keeping poultry—not for profit, but convenience and pleasure, though having an eye to the cost, as much for my own sake as for others. Having to buy every item of food, a strict account was kept.

Sept. 9, 1858, purchased 27 pullets and 2 cocks—a mongrel breed of Dorking, Shanghae, &c., costing $10 87. The hens began laying October 20th, and continued all winter, spring and summer, to September 9, 1859—(one year from time of purchase)—laid 3,302 eggs, besides raising 133 chicks out of 212 eggs, losing 8 chicks—also hatching 27 turkeys out of 48 eggs (bought,) of which 20 were raised.

The principal food was good wheat screenings, costing from $1 50 to $1.75 per 100 lbs., and scraps from the butcher's melting establishment, at $1.12½ per 100—each grown fowl costing one-third of a cent per day; less will raise a chick from egg to one year old The fowls are fed almost to repletion, believing they cannot elaborate eggs unless they have the material to do it. The result is as follows, viz:

	Dr.		Cr.
To 29 fowls,	$10.87	By 3,302 eggs @ 2c,	$66.04
" feed,	35.35	By 29 old fowls, 50c,	14.50
Total,	$46.22	Total cost,	80.54
			46.22
		Profit,	$34.32

The old fowls are valued at fifty cents each, being larger and in better condition than when bought.

With proper care and management, one dollar profit per annum, can be realized on each pullet raised. The young cocks should be killed or sold when fit for broilers—they are unprofitable—if costing one-quarter cent per day, will cost twenty-five cents at one hundred days, which is nearly or quite as much as they will bring; indeed, without eggs, there would be no profit at all—hence, the importance of raising the *best* layers, irrespective of size, though large and well flavored with good laying qualities are desirable.

True, there are contingencies. Like all the animal creation they are mortal; disease and death is also their heritage; they require more attention than they usually receive, but will repay all care bestowed on them. This winter disease appeared among mine, and three died before I thought what to do. The first symptoms observed, eyelids swolen and closed with thick mucus. On examination, showed ulcerated or putrid sore throat. One, whose head, eyes, mouth and throat were almost a mass of corruption, (so filthy that I scarcely dared touch it,) was washed about the head and eyes with a solution of sugar of lead, and gave inwardly ten globules of mercury (Homœopathic) and shut it up alone in a warm coop. In two days gave same dose of pulsatilla, and in four days was apparently well, and is now in good condition. All showing similar symptoms receive the same treatment, thus far with equal success. C. L. N.

Bergen Pt, N. J.

Driving Bees—Bee-Hives, &c.

In the Country Gentleman of Jan. 5, I noticed the inquiry "S. H. S." for a method of driving bees from one hive to another. He asks if it is possible? It is, and very easily done. The simplest mode which I am acquainted with, is to take the old hive a short distance from its usual place, and put an empty one instead. Having protected your hands and face in such a manner that they will not be able to sting you, then jar the hive—the bees will fly out, dart back to where the hive used to stand, enter the new one, and soon become domiciled in their new abode. This operation I think is sometimes very beneficial, especially when the comb has become old and dirty—it seems to have the power of rejuvenating the old swarm. When they have about all evacuated the old hive, it can be carried into a dark room or cellar, being careful to have a small hole through which a little light can penetrate—the remaining bees will fly to this, and thence find their way to the new home. This plan is a very good one for clearing box honey of bees.

Another plan is to invert the hive—set another one directly on top of it, adjusting it in such a manner that the bees cannot escape without getting into the new hive. Then breathe tobacco smoke into the bottom of the old one, gently tapping the hive at the same time—a few moments will suffice for the bees to clear the old hive. Care must be taken not to apply the fume too strongly, or it will make them so torpid and stupid that they will not stir, resisting all efforts to dislodge them. I think this is the reason why many fail in driving them from boxes with tobacco smoke—they are rendered stupid before they are aware of what ails them. Bees naturally have a strong antipathy to tobacco smoke, and will always get out of the way if a chance is given them.

Still another method I heard spoken of the other day. It does not differ materially from the first however. It is this—Cover the face, &c., to prevent stinging—then place a rope of good length around the top of the hive from which you wish to expel the bees—set it off the plank—place another instead—and then carefully place the one containing the bees on your back, holding it to its place by the rope. Then take a stroll out in the lots—a few turns will suffice to dislodge them. I should not prefer the last method for several reasons not worth mentioning.

My father keeps about 40 or 50 swarms of bees. The hive which he uses—got up by himself five or six years ago—is very well liked by those who have seen it, and used by a good many. It is different from any description that I have ever seen. Perhaps it would suit the ideas of some of your readers, and I will give a short description of it. The proportions of the hive are as follows: Height two feet—one foot square clear inside—space in top for box 9 inches high—leaving 14 inches space below the box and partition board for the bees to form comb in. Door in front, 20 inches, is put on 4 inches from the bottom. If put any nearer than that, the bees when hanging out, are apt to get on it, thus hindering the opening of the door. Ventilator in the back of the hive near the top. An auger hole is made through the partition board for the purpose of letting the bees into the boxes. A glass 9 by 12, is placed in the lower part in front, for the purpose of examining into the wellfare of the bees. He always planes and paints them.

The dress he has for the purpose of hiving the bees, is made of coarse book muslin or musqueto netting, or anything which will admit of a free circulation of air, and will prevent the bees from getting near his face. It should not be so close as to obstruct the sight It is made something in the shape of a shirt, with sleeves, and reaches down well in the waist. The upper part is entire, with the exception of a hole of three or four inches in diameter. It is drawn on over a hat, the crown of the hat protruding outside. The brim of the hat keeps it clear from the face. This, with the addition of a pair of gloves which come well up the wrist, when they are well tied on, make a rig which costs but little, and one which any person, when they have them on, need have no fear of bees.

There are quite a number of bees kept in this section; but very little pains is taken to house them, however—are generally left out without any protection whatever during the winter. In the spring the colony comes out very much weakened. This I think is one cause of so many failures, together with carlessness in spring when they are hatching. There are exceptions to this rule however, some taking excellent care of them. Still bee-keeping here as an art is in its infancy.

Bees situated a mile from the lake, which is 2½ miles wide, often cross it for the purpose of getting honey. E. A. KING.

Cayuga Co., N. Y.

Care of Wood-Lots and Preparation of Fuel.

The above named are home subjects, that have a direct bearing upon the interests and comforts of all classes of persons in these northern regions of the country, which are so entirely destitute of coal. And these subjects too, will bear "line upon line," and like Thanksgiving and Christmas, they should come round and be noticed at least once a year, by all the agricultural papers of the country.

The wholesale destruction of our forests since the general introduction of railroads among us, (there now being over 26,000 miles in operation in the United States,) is any thing but cheering to the interests and prospects of the future, or to those that are to succeed us. The question of late has been a thousand times repeated, "where are the people to obtain their fuel, timber, building materials, fencing stuff, &c., &c., if this reckless sweeping of our wood and timber lots is to continue?"—and continue it will, without reference to future consequences, just so long as the "almighty dollar," as Washington Irving termed it, retains its potency over man.

But of these matters it is not our intention to particularly write at this time, but rather to throw out a few hints and suggestions for the consideration of our readers on the management of wood lots, and the preparation of an ample supply of well seasoned fuel; an *item* in domestic affairs that adds so much to the comfort, peace, and well-being of every farmer's family.

In all cases where possible, the first snows of winter should be improved in getting up the year's supply of fire-wood. It is better to shoe sleds than to break paths through three feet snows and six feet drifts. Where the trees on a wood-lot are mostly of an old and large growth, it is better to cut for fuel such as are dead, or appear to be decaying, with dead tops, &c., rather than to take the thrifty growing and sound trees. In most sections of the older settled portions of the country, there will be a continual rise in the value of wood and timber land, and these ancient trees will ultimately come into requisition, and be much more valuable for other purposes than for wood. Therefore they should be scrupulously preserved; we should have some regard to the interests of those who are to succeed us, whether they are of our own kith and kin or not. If posterity has done nothing for us, we have something to do for it. Every owner of a wood-lot should manage it as carefully as he would if he had the assurance of living here through the colds of a coming thousand winters. Philanthropy and patriotism should prompt to this.

Upon a wood-lot where the trees have obtained a fair growth or size for fuel and timber, the owner perhaps will do as well to commence at one corner or end of the lot, and cut all clean as far as wanted for his yearly supply of wood, timber and lumber. The lot should be fenced, so as to keep cattle and sheep from browsing the sprouts and seedlings that may spring up. We think but few farmers, comparatively, are aware with what rapidity a new crop of trees will grow on good and moist soils, where a previous growth of trees has been removed, and the fire and cattle have been kept out. We have recently examined a small wood-lot from which the trees were removed about fifteen years ago. We presume, if all were cut clean, it would now yield nearly or quite twenty cords per acre, and it is worth two dollars per cord on the stump —in some other locations it would be worth five dollars per cord.

When the growth of trees are small and thick, as is frequently the case where a new growth has sprung up, after the removal of a previous growth of trees, it is frequently good economy for the farmer to obtain his fuel from the thinnings of this young growth. Thinning out where too thick, and cutting the stinted and most unthrifty. This will give more light, room, and thrift, to the remaining trees, and the decaying branches lopped off from the removed trees, with the decaying stumps and roots, will add greatly to the thrift and growth of the standing trees.

We have recently examined a wood and timber lot mostly covered with a thrifty growth of white and Norway pines, now about fifty years from the seed. The trees on a portion of the lot were thinned out about twenty-five years ago. This portion of the lot is now worth thirty-three per cent. more than the unthinned portion, in consequence of the larger growth of the trees, for boards and ranging timber; the wood thinned out at the time, amply paying for the labor.

During the past summer and autumn we made several excursions in various directions among the rural population of the country, and as we kept our eyes open during our jaunts, we had opportunity to witness all kinds of farm management, from that practiced by "Farmer Thrifty," down to that pursued by "Squire Slipshod."

At most of the farm-houses at which we called, we noticed ample supplies of fire-wood, suitably prepared for the stoves and neatly corded, in the wood-houses or sheds, where it could readily be obtained without exposure to the weather. Upon inquiry, we found in most cases that the wood was cut sled length, and at the same time drawn from the wood-lot, in early winter. In March and April, before the hurry of spring's work came on, it was cut or sawed and split into suitable billets, and put under cover, where it became well seasoned before wanted for use. Many of this class of farmers had a two years' supply of fuel on hand, and they are enrolled in the same company with Farmer Thrifty.

In some few instances we saw that farmers had drawn up a good supply of wood during the sledding season, and not suitably prepared it for use; it was thrown into a large pile, where it remained exposed to the weather from early spring till late in autumn. There must be lack of economy in such a process, for all the wood lying on and near the surface of the ground, must become mouldy, lifeless, and water-soaked. Perhaps these farmers did the best they could in this case. We do not wish to judge them harshly, neither shall we turn them over to the "Slipshod" class of farmers, but trust they will yet learn to do better as they grown older.

Occasionally we came in contact with well defined specimens of the Slipshod tribe of farmers. They put off getting up their wood so late into winter, and to them, the snow came so early and so unexpectedly deep, that they could not then think of jamming their cattle through the huge drifts; so the winter, as usual, passed off without a wood-pile at the door, and the standing trees remained for future growth, unscarred by the "woodman's axe." But these families have made out to struggle along, as usual, with what old rails, boards, and other trash the women-folks and children could pick up, aided somewhat by occasionally having a green, brushy-topped tree twitched from the pasture by the old skeleton horse. By these aids they have obtained fuel, to raise steam enough to do the cooking and washing after a fashion. But the final result of all such shiftlessness, is to make smoky houses, slipshod and scolding wives, late and half-cooked meals, saucy and unruly children, and the homes of all such anything but pleasant and happy.

Changing Pasture—Shade for Stock.

In regard to changing pastures of dairy cows, we recently copied (Co. Gent., Oct. 20, '59) the opinions of two extensive New-York dairymen, "that cows are more contented, and do better through the season, when not changed from one field to another, unless from a day to a night pasture," or, in other words, that they do best to range at will during the day over the whole pasturage of the farm. Although we have seen other opinions and remarks on the subject since, (some of which we condense below) we see no reason for modifying the opinion then expressed, that, "with a fully sufficient range this may be good policy, but we believe the grass will be more economically consumed, when occasional change of pastures is made." It may, too, be true of some variety of grass, and not of all. Clover, we are sure, and we think it is so with timothy, cannot be employed advantageously as pasture with constant feeding.

We find in the *Ohio Farmer* some report of a discussion by the members of the Ohio State Ag. Society, at their recent annual meeting, on this and cognate subjects. A large majority of the graziers present thought that stock should not be changed from one pasture to another; that if a farmer has one hundred acres of pasture, the division fences should be thrown down. Mr. Seymour, of Ross, said cattle would fatten better confined to one pasture. J. M. Trimble, of Highland, preferred one pasture, without change. Col. Spencer, of Geauga, said that for *cheese* there should be no change. It always diminishes the curd. Mr. Palmer, of the same county, thought a large range best. W. H. Ladd, of Jefferson, pastures all his stock in one field. Mr. Jones, of Delaware, said that in *a blue grass pasture*, a large range is best, but doubted about this in clover or timothy.

For increasing the milk, Mr. Trimble thought changing pastures an advantage. Col. Messenger, of Marion, said frequent changes are best for milk, but would have no change for making beef. Col. Alsdorff, of Licking, a grazier, keeping from forty to fifty head of cattle to feed, said part of his pastures were blue grass, and part of timothy and clover. He fed off the blue grass first in the spring, and then put his cattle on the timothy and clover when the latter begins to shoot. He sold his fat cattle in June and saved his blue grass for fall pasture.

The question of shade trees in pastures (first started by Hon. A B. Dickinson, Steuben Co., N. Y.,) was also discussed. Col. Kenrick, of Franklin, regarded shade trees in a pasture as a nuisance—the cattle would lie under them until drawn out by hunger. Mr. Seymour concurred in this view, and added that cattle grazed in the sun make better and more solid fat, which weighs more, and stands driving better. Flies annoy cattle more in the shade than in the sun. Messrs. Trimble and Messenger would have no shade trees in cattle pastures. All thought them necessary for sheep. On the other hand, Mr. Palmer, of Geauga, and Col. Alsdorff, looked on shade as a benefit. Mr. Taggert, of Wayne, though admitting that more beef could be made in the sun than with shade, would favor trees as more humane to animals. Thirteen head of cattle died by sunstroke in his vicinity last summer. Dr. Townshend said he believed in shade. The instincts of animals may be trusted, and should be supplied. Exercise diminishes the amount of butter, but increases the amount of cheese.

Some other matters brought out, we shall report at another time. We shall be pleased to give the views of our readers on the above topics—and especially upon the best method of feeding off clover and timothy, where these are mainly depended upon for pasturage, as in our grain-growing sections.

Cheap and Excellent Ink.

We like ink that is as black as midnight, and glossy as a raven's wing. Bad ink is a decided nuisance. There is scarcely anything more undesirable than to receive a long letter with bad spelling and worse penmanship, on another man's business; but the annoyance is greatly aggravated if written on dull blue paper with ink about the color of muddy water.

Good ink may often be had by paying a good price for it, say about fifty cents per quart; but after the manufacturer has got up his reputation, he is tempted to sell a cheap and miserable article The best way is for all to make their own ink, and save at least one thousand per cent., as ink is commonly sold at retail, between first cost and final price. But how shall we make it easily and cheaply? Thus:—Buy *extract of logwood*, which may be had for three cents an ounce, or cheaper by the quantity. Buy also, for three cents, an ounce of *bi-chromate of potash*. Do not make a mistake and get the simple chromate of potash. The former is orange red, the latter clear yellow. Now, take half an ounce of extract of logwood,and ten grains of bi-chromate of potash, and dissolve them in a quart of hot rain water. When cold, pour it into a glass bottle, and leave it uncorked for a week or two. Exposure to the air is indispensable. The ink is then made; and has cost five to ten minutes labor, and about three cents, besides the bottle. This ink is at first an intense steel blue, but becomes quite black. We have recently given this ink a fair trial, "and know whereof we affirm." So faras we know it is new.

PRODUCTS OF GOOD COWS.

At the last exhibition of the Hampshire, Franklin and Hampden (Mass.) Ag. Society, nine milch cows were entered for prizes. We condense, from the Transactions of the Society, a portion of the statement furnished by the owners of the cows, relative to their products.

1. A. J. Lincoln, Northampton. Cow supposed to be grade Durham. Calved about the middle of March—during month of May, 1859, was fed on cut hay and six quarts corn meal and rye bran, equal parts, per day. She gave of milk during this month, 1178¾ lbs., equal to 38 lbs. per day. June 1st, she was turned out to pasture, and no extra feed given—and for the month of June gave 1220½ lbs., equal to 40 2-3 lbs. per day. For seven successive days in June, viz., from 10th to 17th, she gave 287 lbs., or 41 lbs. per day. For the month of July, she gave 1130 lbs., equal to 36½ lbs. per day. For three months ending July 31st, she gave 3528¾ lbs., equal to 38 1-3 lbs. per day. Milk was sold, and no butter made.

2. W. B. Hale, Northampton. Grade Durham cow, eight years old. Mr. H. bought her November 25, 1857, two weeks after calving. From this time till June 21, 1859, (when she again calved,) a period of 572 days, she gave 13,056 pounds 3 ounces of uncommonly rich milk, an average daily for the whole time (including 24 days in which she was dry) of 22 lbs. 13 oz., over nine beer quarts or eleven wine quarts. No butter was made—milk sold.

3. E. Fitts, Northampton. Cow seven-eights Durham, 7 years old. Calved January 20, 1859. From 1st to the 10th June, she averaged 21½ quarts milk per day, weighing 53 lbs. Feed—the best of hay and 1 peck of roots per day.

From the 10th to the 20th of Sept., she averaged 35 lbs. per day—feed, poor pasture and 4 quarts of shorts per day. From the 10th to the 20th of Sept., was made from her milk 17½ lbs. of nice butter.

4. Alfred Clapp, Huntington. Cow, half-blood Alderney, 4 years old. She gave, on common pasture, from September 21 to 28, an average of 23 lbs. of milk per day, which produced an average of 1 lb. of butter to 15 lbs. of milk, under good circumstances, thus making 1½ lbs. butter per day.

5. T. E. Elliott, Southampton. Half-blood Hereford heifer, 3 years old. She came in the first time June 6, 1858, when two years and six days old, her milk averaging from 28 to 32½ lbs. per day for ten months, and making 1 lb. of butter per day on an average.

Chilblain Ointment.

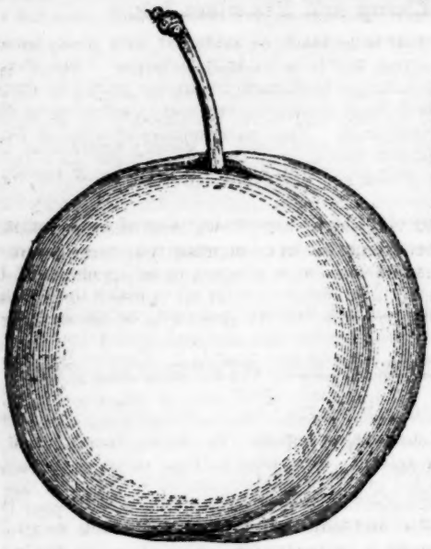
Messrs. Editors—I will give you a receipt for chilblains It is capital, I can assure you, and has *cured* a great many persons, both on my own farm and on other farms:

2 Quarts of Lard,
1 Pint of Turpentine,
½ Pound of Camphor.

R. H.

A BASKET OF PLUMS.

(Concluded from page 14.)

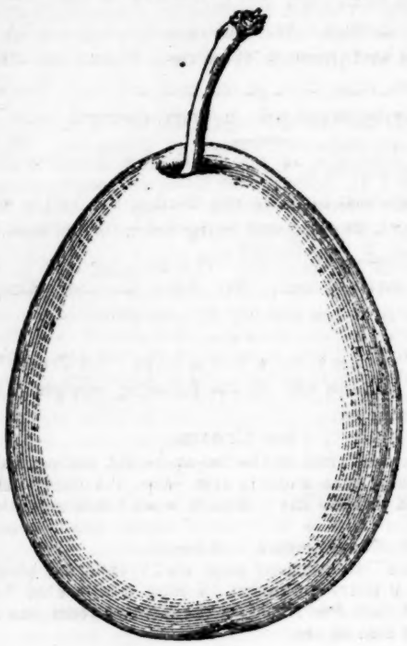


LUCOMBE'S NONSUCH.

LUCOMBE'S NONSUCH. — Large, nearly globular, suture distinct, color greenish yellow, marbled, or with broad attenuating stripes of yellowish orange and greenish yellow; stalk three-fourths of an inch long, in a considerable cavity; flesh moderately firm, greenish yellow, sweet when full ripe, juicy, "good or very good;" adheres to the stone. Shoots smooth. Compares favorably in quality with Imperial Gage. Tree a vigorous grower.

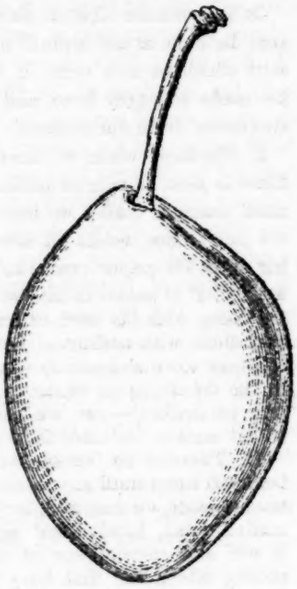
NECTARINE.

NECTARINE.—Fruit large, nearly round, sometimes slightly approaching oblong or ovate, suture moderate; stem quite short, in a deep wide cavity; skin dull rich purple, with conspicuous russet specks; flesh dull brownish yellow, somewhat fibrous, juicy, with a sprightly, moderate, somewhat acid flavor—"good" —adheres partially to the stone.



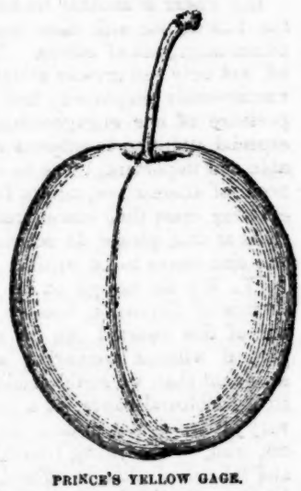
POND'S SEEDLING.

POND'S SEEDLING, *of the English.* —Fruit of the largest size, exceedingly showy, often two and a quarter inches long and an inch and seven-eighths in diameter, obovate and suture small, distinct on one side, obscure on the other, accompanied on both sides by an obscure ridge; stem ¼ of an inch long, in a small cavity; color light red, flesh yellowish, somewhat fibrous, adhering firmly to the stone, sub-acid, of moderate flavor, "good." Shoots smooth — ripens middle or latter part of 9 mo. (Sept.) The most showy and brilliant of all plums—great grower and bearer—quality about equal to Yellow Egg.

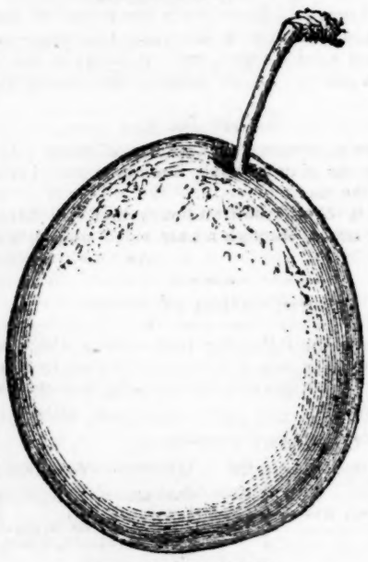


FELLENBERG.

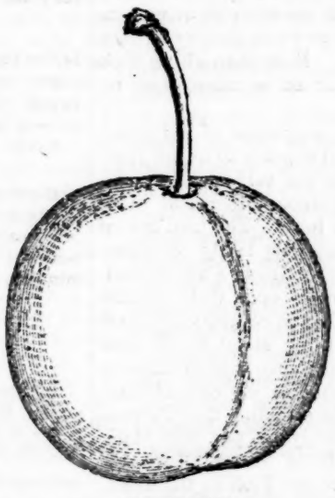
PETERS' YELLOW GAGE.—Large, nearly oval, somewhat varying or irregular in form, stem ¾ of an inch



PRINCE'S YELLOW GAGE.



PETER'S YELLOW GAGE.



PURPLE GAGE.

long, set in a rather deep cavity, which is a little on one side of the plum; suture distinct, dividing the fruit in slightly unequal portions; color a rich greenish yellow, with some crimson dots towards the sun; flesh greenish yellow, rich, sweet, "very good."

FELLENBERG (*or Italian Prune.*)—Size medium, oval, rather pointed at the ends, suture small but distinct; color dark purple with a light blue bloom; stalk an inch long, scarcely sunk at the insertion; flesh greenish

yellow, juicy, sweet, "good," approaching "very good," free from stone.

PRINCE'S YELLOW GAGE.—Well known, and an excellent variety.

PURPLE GAGE. — This excellent plum, under whose name a spurious sort has often been disseminated, is of full medium size, roundish, color a dull rich purple, with russet dots and nettings; stalk an inch long, cavity slight, flesh greenish yellow, fine grained, juicy, sweet, "very good," if not "best," possessing much of the excellence of the Green Gage.

"Do Good and Communicate."

Some kind friend occasionally writes us to this effect: "I had it in mind togive you a letter for publication the other day, but your columns seem always to be running over; so I concluded to take some other time."

It is a maxim almost too old to be quoted, that what may be done at any time is never done at all. The object with which we now write, is to show how the proverb may be made to apply here, and to invite still more general discussion from our readers.

I. Precisely when we have the most, is the time when there is most to suggest additional correspondence. If the most practical reader we have—whether experienced with the pen or not, would sit down the first convenient evening after his paper comes to hand, and take up any one article—if it seems to him wrong in its teachings, to combat them with his own experience, and, if right, to support them with additional facts—if, we say, some reader in every town and county would thus contribute something to the debate, upon whatever topic has chanced to interest him particularly—can we easily estimate the large additional mass of valuable facts which might accumulate?

II. There is no fear of overstocking our supplies—the best will keep until any unusual pressure is over, and keep much better, we may add, for having been actually written, mailed, read, labeled and pigeon-holed in our desk, than it will as a mere tissue of unrecorded events and arguments, which the first busy day may dislodge from the writer's memory.

III. There is another reason why when our columns are the fullest, we still have occasion to ask the voluntary communications of others. In the larger quantity obtained, not only can greater selection and condensation be advantageously employed; but if we overlook, amidst the pressure of our engagements, the propriety of inviting especial attention to subjects which are really most seasonable and important, those to whom these topics chance to occur of themselves, cannot favor us more than by at once entering upon their consideration. More than all, in such cases as this, please do not wait for an occasion when no one else seems to be writing.

IV. We do not go on to the suggestion of particular themes of discussion, because, as it appears to us, no number of this Journal can be made the subject of careful perusal without conveying suggestions fuller and more abundant than we could catalogue here. The true use of an Agricultural paper, as a contemporary lately remarked very justly—is not to dispense knowledge to a set of readers, who, "like young robins," are to open their mouths and take in all that is offered. On the contrary, *in leading them to think*, the very first thing about which they should call both discretion and experience into exercise, is this, "How far is what I read suited to my own circumstances?" And if they conclude in so doing, that the process of thought might advantageously be put into black and white, and result in the benefit of others, all we ask is that while the thoughts and facts are fresh in the mind, they may be at once written down, and sent to us to be set afloat in this fountain of ours, whose waters, gathered from so many sources, are again distributed into channels still much wider and more diverse.

V. Having thus briefly called attention to several points, on which much more perhaps might be profitably addded, it only remains to express our acknowledgments for the many favors already received since the New Year opened, and, in doing so, to remind our readers once again, that as their circle enlarges with each recurring year, the discussions to which they contribute are ever gathering in interest and importance. That each successive number we issue "should bear within itself the evidence that it is the product of the prolonged labor and careful thought of hard-working American farmers, scattered through every State and Territory of the country," we have already stated to be an object which we keep constantly in view; and we hope that in the one cause of a common Agricultural improvement, if in no other, we can all unite cheerfully and heartily, whatever may be the district in which we live.

MAKING PORK—WINTERING PIGS.

Mr. Taggert, of Wayne Co., O., said, at the recent State Society discussions, as reported in the O. Farmer, that he was now engaged in raising pork—that he puts corn worth 40 cents into pork worth $5, and makes money. He is not in favor of keeping hogs long to make them weigh 300 pounds—would have such as mature early. In May rings his pigs, and turns them into a clover field, giving them a little corn. In September, when the corn begins to harden, cuts up corn and throws to them three times a day—thinks there is more value then, in the corn and stalk, than afterwards. One bushel of corn in September will fatten hogs more than one and a half bushels in December. He kills his pork the middle of November.

Mr. T. says that he saves one-third of the feed in winter by providing a sleeping and dining room for his hogs, both warm and clean. He would not crowd with feed—gives them corn meal scalded. We think the importance of comfortable pens can scarcely be overestimated.

"Jennie" wishes to know how to make "Ice Cream" and "Frosting." If she will try the following receipes I think she will like them:

Ice Cream.

Put 2 quarts of milk on the fire and scald, adding 4 sheets of isinglass broken in small pieces—also 1 tablespoonful of flour blended with a little cold milk, when the isinglass is dissolved—strain right on to 3 cups of sugar—flavor to taste—add 2 quarts of sweet cream, and freeze.

If "Jennie" lives where milk and cream are plenty, I would ask her to try the above. I have used one of "Maser's Five Minute Freezers," for the last two years, and think they are the best in use.

Soyer's Royal Icing.

Is the best I know of. Have ready one pound of fine white sugar—put it in a basin with the white of 3 eggs—beat well together with a wooden spoon, until it hangs in flakes. The juice of half a lemon, or a few drops of the extract, will flavor it nicely.

Table Jelly.

Eight sheets of isinglass—8 tumblers of water—1½ pounds of sugar—2 sticks of cinnamon—same of mace—3 lemons cut in slices and the seeds taken out—the whites of 3 eggs well beaten. Let it all soak half an hour; then boil hard for ten minutes, and strain through a hair sieve into moulds.

AN OLD SUBSCRIBER.

Germination of Seeds.

Loudon gives the following table—from which it would appear that the grasses are most rapid in germination; then perhaps cruciform plants; then leguminous; then labiate; then umbelliferous; and lastly rosaceous; although there are many exceptions to this order.

Wheat, millet,	1 day	Orache,	8 days.
Spinach, Beans, mustard,	3 "	Purslane,	9 "
Lettuce,	4 "	Cabbage,	10 "
Melon, cucumber, cress,	5 "	Parsley,	40 "
Radish, beet,	6 "	Almond, chestnut, peach,	1 year.
Barley,	7 "	Rose, Hawthorn, filbert,	2 "

[Reported for the Country Gentleman and Cultivator.]

Fruit Grower's Society of Western New-York.

The winter meeting, held at Rochester on the 4th and 5th of the present month, was as usual largely attended, a large portion of the counties west of Syracuse being represented. The exhibition of fruit was excellent, containing several large collections of apples, but the most remarkable part of the exhibition was the superb display of *winter pears*, embracing more than fifty varieties, filling as many dishes, and most of them specimens of admirable growth, all from Ellwanger & Barry.

Discussions on Fruits and Fruit Culture.

The first question taken up was, "Is the dwarf pear a humbug?" A. Pinney, of Clarkson, had cultivated it with great success, and especially the Louise Bonne of Jersey, which had outborne all other sorts. W. P. Townsend, of Lockport, believed, from 25 years experience, that this sort would bear three times as much as any other pear—he would plant dwarfs rather than standards, placing them near together—and would cultivate the *whole surface*, and keep it thoroughly stirred, as often as at least once in two weeks. The best sorts as dwarfs he thought were, Louise Bonne of Jersey, Virgalieu, Angouleme, Beurre Diel, Winkfield, and for summer, the Doyenne d'Eta. The Flemish Beauty was also a fine grower. C. L. Hoag, of Lockport, found the Flemish Beauty to grow better than any other sort, after it became once established. Prof. Coppock, of Buffalo, differed on one point—he thought the Vicar of Winkfield would bear twice as much as any other sort.

G. Ellwanger, of Rochester, named the following sorts as never succeeding on the quince, namely, Bosc, Autumn Paradise, Sheldon, and Dix. There are several others that succeed imperfectly. But all the *fruit*, borne on dwarf trees, is invariably finer than when grown on pear stocks. H. T. Brooks thought that they were not the sort to send out among *farmers*, for no sort should be recommended to them but such as would bear "grief" well, for they would not take care of them, and although he would set at the feet of the Rochester nurserymen, yet he would presume to advise them, in making up lists for farmers, to put in very few dwarf pears. W. B. Smith, of Syracuse, replied by suggesting the same cautious course in relation to recommending improved breeds of cattle to farmers. S. H. Ainsworth said he had formerly spoken and written against dwarf pears—but he had found that some sorts bore more heavily, as well as better fruit, on quince. He had two old trees of Louise Bonne of Jersey, one a dwarf, and the other a standard; the fruit on the former was always double in size, and of superior quality. With other sorts the difference was less obvious. The Vicar of Winkfield was fine and valuable on quince—on pear "worth nothing." The whole secret in raising dwarfs, is first to get the right sorts (which are few,) and then give thorough cultivation. The trees must be properly pruned, and cultivated *broadcast*, as often as once a week—of course by horse power. With this treatment, success will be certain. He had failed at first by using bad stock—on the common quince, they soon failed—seedlings from the common quince were perfectly worthless. The Angers quince was the only sort that he had succeeded with. In answer to a question, he said he erred in sending his pears to Boston market, where he received but ten dollars per barrel, while they sold freely at all times at New-York, for at least fifteen dollars per barrel. He finds the Winter Nelis to crack badly by the side of Virgalieus that never crack with him. G. Ellwanger thought the Fontenay stock better than the Angers—the latter, indeed, grows faster at first, but the Fontenay afterwards expands and makes a better union with the pear. He said he had never found the Angouleme of any value on the pear—which remark was confirmed by S. H. Ainsworth. T. G. Yeomans stated that it is important to have *well grown* specimens of the Angouleme—that first and second size are generally excellent in quality, but small ones never but only as good to eat as a raw potato. A. Pinney had never found any good, but fully grown ones.

T. G. Yeomans stated that he had 140 trees of the Angouleme on one-third of an acre—they yielded about 30 barrels—of these, five barrels were blown off by wind, and were sold from six to eighteen dollars per barrel. But the best six barrels sold for *one hundred and fifty-six dollars*, or $26 per barrel. The whole third acre yielded him five hundred dollars. The trees are planted ten feet apart, cultivated by horses, at much less expense than cultivating potatoes. The best barrel was filled with 166 pears. He has already had applications for his next year's crop. The barrels hold two and a half bushels. He places the pears in carefully, till the weight of one person is required to press them enough to place the head in, after having covered them at the top with cotton batting. G. Ellwanger stated that the fruit of the Louise Bonne of Jersey, he had sent to market at New-York, sold from sixteen to twenty dollars per barrel—and from the experiments already made, he thought that eight or ten year trees, with good cultivation, would safely yield on an average per annum, at the rate of over a thousand dollars per acre—and that this variety would produce at least twice as much money from the same land as any other sort.

Culture of the Grape.

H. N. Langworthy remarked that of the amount of fruit sent to market, the Isabella had greatly exceeded all others—he alluded to the importance of quickly testing the many new sorts, and inquired in relation to the practicability of doing this by grafting. C. P. Bissell said that grafting was difficult, but he recommended more attention to inarching for this purpose. He thought that vines propagated in pots, (which some other members thought tardy in bearing,) would soon furnish clusters of fruit—he had had them the second year—and C. L. Hoag stated similar results. G. Ellwanger said that he had found no difficulty whatever in grafting, doing the work in winter within doors by the cleft-grafting mode—and they generally bear the second year. He had known them to grow 20 or 30 feet the same year. S. H. Ainsworth had successfully practiced grafting by taking up early in spring two-year roots, and they had grown 30 feet the same year. Strong ligatures were required. When set out, the place of union must be below the surface of the soil. L. B. Langworthy said he had found no difficulty in grafting a vine, even as large as one's arm, provided the grafts were kept cold and dormant, till after the leaves were expanded, and then cleft-grafting in the usual way, taking care to cover the work three or four inches below the surface of the soil.

Comparative Profits on Fruits.

The comparative merits of *apples*, *pears* and *small fruits*, *for market*, by skillful cultivators, occupied a considerable share of attention. B. Barry said the proper estimate of their merits would depend greatly on circumstances. Near a city, small fruits would doubtless be most profitable. For distant marketing, by barrelling up the fruit, larger and longer keeping fruits will be best. In some places the soil may be best for *pears*—in another *peaches* may be most remunerative—in others again, apples may be best. Apples, if good, always have a ready sale. In Niagara county, the estimated amount sold was half a million of dollars worth. Where the soil is right, pears promise the highest profit—notwithstanding that terrible malady the fire blight, and the various accidents to which this tree is peculiarly liable. He thought the pear promised higher remuneration to skillful cultivators on proper soils, than anything else. For farmers the apple promises best. Some who had but four or five acres of good orchard, of the best winter apples, had realized more from this small area, than from all the rest of their farms. The crop fails less frequently than some of the most common farm crops—and from the fact that in large portions of the country elsewhere good apples could not be raised, he thought the market would not be soon overstocked. In answer to a question, he said the pear was a more certain crop than the apple—indeed it bore every year without exception—and by keeping a quantity of trees on hand to replace loss-

es by the fire-blight, he does not apprehend much trouble under good management of this tree.

W. P. Townsend of Lockport, said he had Baldwin apple trees ten years planted, that yielded seven barrels of fruit at a crop. Pears had never yielded so great a crop, but a greater value in market. He would never set out standard pear trees for profit, but always dwarfs. W. B. Smith of Syracuse, was satisfied that for the first ten years, from an equal area, more fruit could be raised from pear trees than from apples, and alluded to the constantly increasing price of market pears. In answer to a question, he said that pears could be raised for a dollar a bushel, if apples could be.

H. T. Brooks of Wyoming county, strongly recommended the apple for cultivation by farmers. A neighbor had three Baldwin trees that produced six to eight barrels each, and being very fine, sold them at three dollars per barrel. He was confident that one acre of good orchard would yield more than any ten acres with grain crops.

S. H. Ainsworth stated one prominent advantage possessed by the pear. The trees, if properly cultivated, never failed in a single year of producing good crops; while the apple does not afford a good crop only about one-third of the seasons. He was strongly in favor of *standard* pears —had found the young trees on an average, to bear a bushel of fruit sooner than apple trees set out at the same time. And as there might be 160 trees per acre, and the crop more certain, they were vastly more profitable. They need, of course, good cultivation—but this need not cost so much as the yearly cultivation of grain.

On the subject of the marketing of pears. P. Barry remarked that in offering winter pears for sale, more than triple the price might be obtained by the grower attending to the proper ripening, and forwarding them to the dealers a few days before full maturity. Doubtless when they become more abundant, houses would be fitted up in the cities where this could be done on a large scale, with great perfection.

Bearing Years of the Peach.

T. G. Yeomans of Walworth, Wayne Co., a very successful cultivator of the peach, had known but two entire failures of the crop in 30 years, and only two or three partial failures. He thought the great and first requisite was to have the ground *dry*. He seldom prunes until they have borne a crop. He then takes a saw or pruning shears, and cuts all the longer branches, which greatly invigorates the rest, and increases the value and quality of the crop. Five minutes at each tree is enough. It is done early in spring. Cutting off yearly only a portion of the previous summer's growth he has found too troublesome and laborious.

W. P. Townsend of Lockport, said, along the borders of Lake Ontario was the best locality—he had known the thermometer to be six below zero at Lockport, and seven above at the lake at the same time.

The President (B. Hodge,) stated that under ordinary circumstances, when the thermometer sinks lower than 12° below zero, the crop is destroyed; but there are exceptions, varying with the condition of the tree and the subsequent weather. Sometimes the temperature had sunk to 16° or even 18° below zero, and had left a partial crop.

Several members urged the importance of shortening back the branches, not by cutting the yearly growth, but occasionally the larger limbs—not at the center of the tree, but out nearer the extremities.

Preparing Ground for Orchards.

Deep loosening of the earth with the subsoil plow or double Michigan was generally recommended. When the subsoil is fertile, the use of the double Michigan, which throws the bottom of the furrow to the top, was regarded best—otherwise the common subsoil plow is to be preferred, leaving the subsoil loosened at the bottom. T. G. Yeomans considered draining of first importance—much land that is generally regarded as not requiring it, he had found greatly improved. In some cases, it had proved profitable to lay the tile once in every 20 feet. In undrained soil, he had found the small roots of the trees to extend downwards but a few inches; but in well drained land, the roots had gone down to the full depth of the drains. He had never found the feared evil of roots choking the tile.

P. Barry said that the result of his experiments proved that scarcely any ground could be found that did not need draining. He would tile-drain all land for orchards—next plow deep,—as deep as practicable, and follow in the furrow with a four-horse subsoil plow. He would not plant trees near the drains, but intermediate between them, and then the downward roots would not choke them. He discouraged the use of manure at the time of planting—stating that thousands of trees were yearly killed by placing fresh manure near the roots. The manure will be more useful applied to the surface and worked in, some years afterwards. During the summer, the best mulching is to keep the soil constantly mellow, and in winter old straw or manure. Working manure into the surface of heavy or clayey soils, served to keep it loose and moist.

T. G. Yeomans stated that the proper *distance* for planting apple trees in orchards is about 40 feet, especially if the land is rich and deeply plowed. If only two rods apart, the branches will touch each other. He thought that the extremes should be avoided of low heads and very high ones. Some trees of Baldwin and R. I. Greening, if trimmed six feet high, when heavily loaded would have branches nearly touching the ground. [Would it not be best in pruning, to remove those low branches, and leave such only as have a more ascending position.—*Eds.*] These sorts he would train to much higher heads than the Northern Spy, which is very upright in form. P. Barry differed from his friend Yeomans, and would prefer low heads to trees. The severe winters and hot summers seem to require the protection which low heads afford; and the objection that such trees impede cultivation, he answered by saying that they did not require cultivation very near the tree when the ground is shaded by them, the roots extending a long distance beyond this limit.

The subject of the mode of digging trees from the nursery now attracted considerable attention; and in answer to a question, "if it is ever pardonable in nurserymen to mutilate the roots," a member said he would not like to say it is "unpardonable," but if he did, he would be only telling the truth—for "if there is any sin that nurserymen will have to answer for in this world and the next, it is the remorseless mutilation of the roots of trees."

Proper Age for Setting out Young Trees.

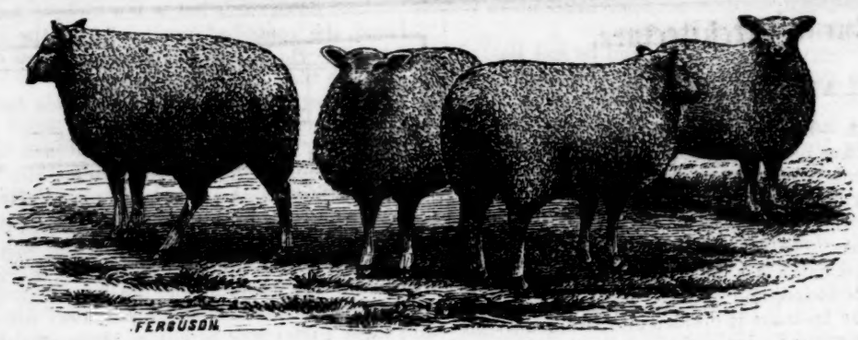
The president, (B. Hodge,) said he was once a nurseryman, and when he recommended to purchasers small and young trees, they thought it was because he was interested in selling them. He had now ceased to be a nurseryman, and had planted orchards largely, and was only confirmed in his previous opinion. He would greatly prefer an apple tree only five or six feet high to any larger,—would never set out a cherry tree over two years of age, and preferred a dwarf pear of the same age. He cited instances where large and small trees were set out side by side some years since: the latter were now much the finest. Judge Langworthy had witnessed the same results.

The Borer.

O. Chapin of Bloomfield, had been much annoyed by this insect, but had succeeded after losing many trees, in clearing his orchard, by employing a man to examine his trees twice a year, in May or June, and in September. The second year but few could be found, and one man would then go over twenty acres of orchard in a day. He used a jack-knife and a flexible wire to destroy them by punching in the hole. He cleared his peach trees in the same way, the knife only being required.

Many other interesting facts were stated during the discussions, of which our limits preclude the statement, and the Society voted to hold its next or summer meeting at Buffalo.

It has been computed that there are eight hundred millions in gold and jewels at the bottom of the sea on the rout between England and India.



LEICESTER SHEEP—Late the property of Jurian Winne, Bethlehem, Albany Co., N. Y

Mr. Winne has found the Leicester Sheep so well suited to feeding purposes, that he has been improving and enlarging his flock from year to year, and aside from the breeding animals, is this winter engaged in fattening over 500 for the butcher. He began by purchasing the entire flock of Mr. Shaw of Talbot St., C. W., from which he selected the best females and put with them a ram obtained from Hungerford, Brodie & Converse, of Jefferson Co. His next cross was obtained by means of a ram from the flock of Mr. John Stewart, Sr., of Orford, C. W., who has been engaged for 17 years as a breeder of Leicesters, and been quite successful as a prize-taker wherever he has shown. The next addition to Mr. Winne's flock was the purchase from Patrick, Brodie & Hungerford, of a ram and two ewes bred from their importation of 1856 or 1857, and, lastly, his first choice out of 13 yearling rams bred by Mr. John Snell of Brampton, C. W. The last named animal took the first prize at the State Fair last October in this city. His weight at about 17 months old, was 285 lbs.

The engraving is executed from a photograph, and represents the three ewes and a lamb purchased from Mr. Winne a few weeks since, by Mr. Edward Frisbie of California, where they will doubtless be of good service and give ample satisfaction.

Fitting Soil for Grain—Harrows, &c.

1. What is the best implement for fitting fall-plowed land for sowing in the spring? Our common harrows do not stir up the land deep enough.
2. What is the practice in fitting land for drilling in the seed, i. e., wheat, &c.? Does it require harrowing previously?
3. Is it advisable to roll land sowed with a drill as well as that sown broadcast?
4. Will the "Shares" harrow fit land which has been plowed in the fall as well as the steel tooth cultivator? C. B. D. Greenlake, Wis.

The best implement for pulvering in spring, land plowed in fall, depends upon the condition of the soil. If *stubble* has been plowed in autumn, leaving a clean surface, the gang-plow is best, especially if the land is heavy, and has become much hardened by lying unstirred so long. It will break up and pulverize the surface three or four inches down, much more efficiently than Shares' harrow, and more completely than the steel tooth cultivator. But on inverted sod, the gang-plow or cultivator will be apt to bear up much of the sod, and here Shares' harrow will be far the best. This is especially the case if the sod has been lapped. Shares' harrow never tears up the sod, but presses it down. If plowed very deep, and the sod laid flat, the gang plow would perhaps do well after the sod had settled all winter.

On heavy or clayey soils, that were plowed in autumn, the surface has usually become hardened so much by spring, that Shares' harrow is hardly efficient enough; but on spring-plowed sod, or on lighter soils, it is an admirable pulverizer. On the other hand, there is scarcely any soil too hard for the gang-plow, if there are no weeds or vegetable growth upon he surface.

In order to use the drill to best advantage, the land should be previously harrowed. It is not necessary to roll it, unless the soil should be very dry, and it is desired to have a smooth surface.

Potatoes and Ruta Bagas.—Mr. H. G. Patten, Duquesne Farm, Butler county, Pa., informs the *Country Gentleman*, that he raised the past season on seven square rods of ground, thirty bushels of potatoes and twelve and a half bushels of ruta bagas, the latter being planted where the potatoes failed to come up; also, that on one-seventh of an acre he raised one hundred and ten bushels ruta bagas, some of them weighing four to six pounds each.

The Large or Peavine Clover.

A correspondent of the *Country Gentleman*, (E. A. King, of Cayuga county, N. Y.,) after alluding to the partial failure of the grass crop the past season, thus alludes to this clover:

"Farmers who seeded with the larger kind of clover, were exceedingly well paid. The season was very favorable for this variety. It stands an early drouth better than any kind of grass. The smaller kind was ready to cut when the larger was green and growing finely. It thus received the benefits of the July rains, and got a fine growth. From a lot of five acres we cut this season 12 tons of as fine hay as a person could wish for. The lot was what is termed Lake land, of a clayey soil. If we had sown the smaller kind instead, we would probably have got about 3 tons. The greatest objection which farmers have to this clover, is its aptness to grow too large, and then fall before fit to cut. This I think can be remedied by increasing the quantity of seed; it will then grow thick on the ground, and will not grow so tall, and therefore will not be so apt to fall. Our stock eat it very readily. To my mind it would be just the thing to raise for the purpose of plowing under."

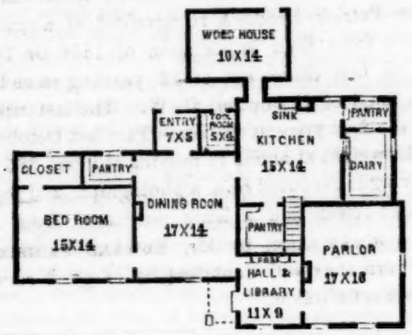
I notice an inquiry about Peavine clover by J. A Lawton. I am of opinion that it is the variety known here as the German clover. It is sown largely in this county on the thin lands, with timothy. It is too large a growth for our limestone lands, and it grows too long and falls down, and is very hard to mow, but it produces double the quantity of hay. Long and rough as it is, it is eaten clean by cattle and horses, and is easily cured, as it is made after grain cutting; and for pasture exceeds the smaller variety, as cattle will graze on it when loose, where both kinds are sown in the same field. The seed can be had at our warehouses. If any of my brother farmers wish I will attend to having it forwarded to them if application be made soon. W. H. Woodburn. *Newville, Cumberland Co., Pa.*

Stock Sales.—We learn that James O. Sheldon, Esq., of White Spring Farm, near Geneva, has recently sold a fine red and white bull calf, to Mr. Franklin Fay, of Brocton, Chautauqua Co., said to be a very promising animal—out of "Christabel," by "The Duke of Gloster," (11382,) and we hope it will be of great service to the stock in that section of the State.

Rural Architecture.

PLAN OF A HOUSE.

Eds. Co. Gent.—Enclosed I send you a plan of my house, which I have just completed. You are at liberty to publish the same. The only merits it has, are that it is convenient and comfortable, and the plan may be of service to some of your subscribers who have to build as I did, by piece meal. The first part, consisting of a parlor, &c., (a story and a half,) was built some years ago, the kitchen afterwards added, and now the wing, consisting of bed-room, &c. The up-stairs is divided into two bed-rooms and closets. The ground plan will speak for itself. The dairy is sunk about two feet, and has a brick floor. The house is kept warm by three stoves. A. Francis.



Ground Plan of House in Udimore Park.

This is a good and convenient plan—but would be improved for most occupants, if the pantry immediately in the rear of the hall were removed, and the hall and library made to occupy the whole, as there are already two other pantries. This alteration would also allow a longer and easier flight of steps; the stairs are now too short and steep. This house has more exterior wall than a more square and compact building; but such a form is necessarily the result of repeated additions—which many occupants find it necessary to make. Such a form is better also, for lighting and ventilation.

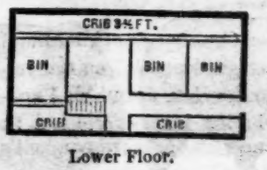
PLAN OF A CORN BARN.

Messrs. L. Tucker & Son—I have long been a reader of The Cultivator, as I was raised on a farm, and during my minority I generally read it as regularly as it came, and many are the useful hints I have gleaned from its pages. In the spring of 1855, I began to work for myself on this farm, and I have no desire ever to change my residence. The improvements I make, I intend to use and enjoy—hence I endeavor to erect permanent buildings and *under drains*, notwithstanding the assertions of so many that "ditching does not pay."

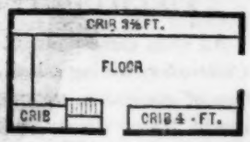
Barnes' Corn-House.

I have been building a *corn-house*, (the plan entirely my own,) and herewith is the plan. If you think favorably of it, use it as you think best. The only objection I have to it, is its *cost*, but I think that is more than repaid by convenience.

It stands on the side of a hill, on a foundation six and a half feet high, the floor to which is paved, and in this room, divided into three pens, I fat my hogs.



Lower Floor.



Upper Floor.

The frame is 20 by 40 feet, with posts 14 feet high, and there are five bents, making sleepers and joists 10 ft. long. I drive into it from the top of the hill, so that I unload my corn on the upper floor, (the floor with the beams;) this makes but little labor to put away the corn, as the cribs extend the whole length, and from sills to rafters, and it is a saving of room, as the space between the cribs on the lower floor gives me three large bins, beside a threshing floor. The bins are filled through trap-doors in the upper floor. The cribs are made by bolting studs to the joists, and the bins are made by nailing boards to other studs, thus leaving six or eight inches between cribs and bins, for the circulation of the air and cats, the plank of the upper floor being even with the joists, and *not* fitted to the studs.

At a short distance the building looks as if it were clapboarded, the slats being put on horizontally, being first beveled an inch on each edge, and then placed half an inch apart, so each laps the other a half inch. It cost about $400, including painting, &c.

Onondaga Co., N. Y. George Barnes.

KEEP AN ACCOUNT WITH YOUR FARM

Messrs. Eds.—Every evening during the past "working season," I have "posted up" a record of the labors of the day, giving my best estimate of their money value to each item of work, and to every thing used on the farm. As each crop was committed to the earth, I gave it an appropriate heading and transferred to its page in my book, the items of labor, seed, manure, &c., belonging thereto, and since harvest have "closed the account" with the several crops, or brought them so that I can see very nearly their cost and value. I find this a very convenient as well as economical course of procedure. In any other business it would be a waste of words to argue in its favor, for men seldom engage in other operations, even of trifling extent, without keeping an account of outgo and income. Why should not the farmer do so? There is no good reason, and the amount of time and thought it requires cannot be better employed in furthering the success of the enterprise in which he has engaged.

No particular system of accounts would suit all minds and circumstances, so I will not offer mine, at least as long as I see so many chances of systematizing and improving it. But I would urge every farmer to keep an account with his farm, so as to be able at the close of the season to "strike the balance," showing, not by guess-work, but in pounds and bushels, and dollars and cents, the profit or loss of the business of the year. One cannot tell how he stands with the world, how his plans have resulted, or how each crop and animal has repaid the outlay of production, without such account, with any accuracy or detail. He may be losing his labor and money on that to which his chief attention is devoted, while a good profit is returned on some minor product, which he thinks of little consequence. A statement of capital invested, with the expenses of growth and culture, and the receipts or return from the products, would at once decide the true policy of the farmer—his profits and losses, and from whence they arise.

No one who has not pursued this course has any idea of its importance. Now is a favorable time to commence it, and I can assure those who will give farm accounts a thorough trial, that "the figures" will furnish them many a valuable lesson, and give many a hint by which they can make or save in after years. They will serve as sharp reminders of the folly of attempting too much, or of leaving the finishing touch undone, and show you from what arose the comfortable satisfaction of pocketing the profits of your well-ordered labors. B. F.

FIELD CULTURE OF THE ONION.

An Ohio correspondent of the *Country Gentleman* and *Cultivator*, having asked for a "good article" on the culture of the onion, we applied to the Hon. JOHN. W. PROCTOR of Essex county, Mass., who has kindly furnished us the following, which we think answers our correspondent's requirements:

MESSRS. TUCKER & SON—I am most happy to appropriate a part of this memorable day, in answering your inquiries about the culture of the ONION.

You are right in supposing this culture to be extensively carried on in this vicinity. Until within the last three years, there have been no crops grown that paid so well, and even the last year, there were many acres that came within my observation, that yielded a net product of one hundred dollars and more. This, when it is considered that a laboring man, with the aid of his own family, boys and girls, can conveniently take care of five acres and more, will prove this to be no mean business, although the odor thereof may not be of the most agreeable character.

Success in this culture demands the most persevering industry and watchful care. No lazy man can succeed in it. Any land that will yield a good crop of *Indian corn*—say fifty bushels to the acre—can be made to produce onions. There are several points in the culture essential to be regarded.

1. The soil must be thoroughly prepared. Nothing less than the best of garden culture will fit it for growing the onion. Although the plant matures chiefly on the surface, still its delicate fibres penetrate to the depth of a foot or more, in search of sustenance and moisture; and therefore every facility to aid their ready penetration should be afforded—not only aid to penetrate, but vigilance to preserve from harm. Nothing can be more injurious to the growth of the onion, than the rude fracture of these fibres. Hence weeds should have no place on onion grounds. I have frequently known a loss of full half the crop by suffering them to remain a week too long without eradicating the weeds. When the injury is once done, it cannot be repaired. The delicate sensitiveness of the onion admits no atonement for a wanton injury.

A good crop may not be expected without unremitted vigilance and care. Care from the beginning to the end—care in the preparation of the ground—care in the selection and growing of the seeds—care in depositing—care in eradicating the weeds—care in securing the crop, and care in taking it to the market, under circumstances the most favorable.

First and foremost, it is necessary to be vigilant in planting the seed *early*. Those who are *up and doing*, are sure to find their reward in growing the onion. There are so many embarrassments in the way of their successful growth, in this cold and changeable climate, that no fair day after April commences, should be permitted to pass without something being done on the field for onions, either in fitting the ground, fining the manure, or in distributing it upon the surface, so that it will not be in the way of the even distribution of the seed. The seed is distributed by machines, in rows fourteen inches apart, as straight as they can be made, to facilitate the safe movement of the onion weeder, which passes between the rows so guaged as to cut the weeds without disturbing the plants. Whatever weeds remain uncut, are carefully removed by the fingers of boys or girls, who pass on their knees between the rows. No one who is afraid of soiling their knees or their fingers, need engage in the culture of the onion. Nothing short of a close embrace will command the sympathy or affection of this plant.

I have spoken of thorough manuring, and rarely have I known a crop to be injured by a too free application of manure. Ordinarily, *six*, *eight* or *ten* cords of good, well fined manure, is applied annually to each acre, and such application I have known successively for twenty years. Unlike most other crops, the onion continues to grow well after itself for many years in succession. I know no limit in this respect.

Any good manure is good for onins. None better than that made in the barn-yard, where stock is generously fed, and where the shovel is faithfully used in fining it. Fining of the manure and pulverization of the soil are essential prerequisites to the growing of the onion.

So much for the growing. There is more to be said about the harvesting and marketing, which can better be done on another occasion. J. W. PROCTOR. *Dec.* 22.

RAISING THORNS FROM SEED.

I observe in the Co. Gent., an inquiry as to the best method of raising thorn seedlings. Although the answering is referred to another person, I have concluded to give an account of the methods I have used for years past, that have uniformly been successful.

For the Cockspur thorn, *Crataegus crus galli*, when the berries or haws are gathered, mix with them twice the quantity of sand; put the whole in boxes without top or bottom in the open air; let them remain in that state till the succeeding autumn, (about one year;) then riddle the sand from them, tread or roll the berries, to separate the seeds from the cover which will then be much decayed. Make a good seed-bed for them, saving two inches of the top of the bed to cover the seed. Then sow broadcast, and cover with the earth kept for the purpose. They will come up the following spring.

I have also succeeded well by crushing the berries immediately when gathered, being careful not to crush the seeds—then sowing them as described above, and also with them, other seeds expected to come up a year sooner, and to be taken away. I used generally the Honey Locust, which grew and were drawn out the succeeding autumn, and the spring following the Thorns came up well.

These methods will do well for the following kinds, viz., English hawthorn and the Dotted thorn, *oxyacantha* and *punctata*, but for the Newcastle thorn, C. CORDATA, it is necessary to plant immediately when gathered, (crushed and mixed with sand as above, to separate the seeds,) or else to plant very early in the ensuing spring, as the seeds come up early the first year, generally so early that it is proper to provide a place in the fall in proper order to sow them in.

With the Scarlet thorn, the *Coccinea*, I have had little experience of late years; but judge that as the seeds are less, and not protected by so hard a cover as the Cockspur, it will be safest to put them in the ground when gathered. A. W. CORSON. *Plymouth Meeting, Pa.*

Farm Accounts—Profit on a Corn Crop.

How soon the Mechanic, the Merchant, the Manufacturer—in short every business man, would get entangled in interminable difficulties did they not have a system of book-keeping by which they could at any time ascertain the true state of their business operations. Now if these classes are unable to proceed without it, how much more necessary for the Farmer to practice some system of keeping accounts with a business a good deal more complicated than either; yet how few do it. Ask a mechanic how much a sleigh, a plow or cultivator has cost, and he can tell you to a penny, for he has kept an exact account of it, which he has to do in order to know how to sell it, and make a living by his business. Ask a farmer how much a bushel of corn costs him this year, or how much that yearling or colt has cost to raise it, and he will say, "Oh, I ask so much for it; don't know how much it has cost me," and so it is with everything. Not one farmer in ten knows the cost of anything he produces. To this simple act of negligence may be traced the cause of two-thirds the failures in farming, for if the farmers knew the cost of producing every article, they would then know what crops paid the best on each one's particular farm, and they could reject all those that were no profit to them. Some farms are most productive for one kind of grain and some for another, but we do not know which these kinds are without some method of ascertaining the cost of each. But, says one, it takes too much time. All a mistake, my

friend. I have done it for several years, and have never taken any time that was necessary to be devoted to other business. Every farmer has leisure time enough to keep ten books, which had better be applied to that purpose than doing a great many things which they now do on rainy days and other leisure hours. It is not necessary to have a complete set of books like a merchant, one being sufficient. Take a common account book, costing about half a dollar, and take a certain space for each field, making it debtor on the left and creditor on the right side, in this manner:

Dr.	CORN-FIELD.	Cr.
Date.	Dols. | Cts. | Date	Dols. | Cts.

Whenever you do anything to your crop, put down on the Dr. side the actual worth of it, and thus continue to do until your crop is secured, and you know how much you have expended on it. Then place on the Cr. side the actual value of your entire crop, corn fodder, pumpkins, and all that is of any worth. Then balance the accounts some of these long winter evenings, and you will know just how much your corn has cost per bushel, and whether you have made or lost on it.

As a great many farmers are wholly unacquainted with any system of book-keeping, but would like to try it, I will make an extract from my book for the past year which will show what I think to be a very good system of keeping farm accounts, and at the same time give the result of an experiment in raising corn.

My corn-field consisted of four acres, two of which I plowed in the fall. The soil, a slatey loam, was very uniform, and was all manured alike, and cultivated alike with the exception of the plowing in the fall, and I will state here that the two acres plowed in the fall gave seven and a half bushels more corn than the other, the one giving 82 and the other 89¼ bushels of shelled corn.

CORN-FIELD—Four Acres, Dr.

May 3.	To 2½ days plowing,	$7.50
" 4.	" 1 day's harrowing,	3.00
" 5.	" 1 day's furrowing,	1.75
" 6.	" 3 men planting one day, 75 cts.,	2.25
June 2.	" 1 day's cultivating,	1.75
" 3.	" 400 pounds plaster and putting on,	2.00
" 6.	" cultivating and hoeing,	4.75
July 3.	" plowing and hilling,	7.00
Sept. 21.	" cutting up corn, 4 days, 75 cts.,	3.00
" 21.	" boy to bind, 50 cts.,	2.00
Oct. 15.	" husking 10 days, 75 cts.,	7.50
" 25.	" drawing fodder,	2.50
" 30.	" sorting and cribbing corn,	1.50
Dec. 15.	" threshing and marketing corn,	10.26
	" 40 loads manure, half cost,	20.00
	" drawing and spreading the same,	8.00
	" interest, taxes, seed-corn, &c.,	20.00
	Total expense,	$104.76

CORN-FIELD—Four Acres, Cr.

Dec. 15.	By 171 bushels shelled corn, at 90 cts.,	$153.90
	" 4 acres of fodder, at $5,	20.00
	" 18 loads pumpkins, at 50 cts.,	9.00
	" 19 bushels ears soft corn, at 18 cts.,	3.42
	Total receipts,	$186.32
	Deduct total expenses,	104.76
	Which leaves a clear profit of,	$81.56

Deducting the worth of the fodder, pumpkins and soft corn, from the cost of the whole, and we have $72.34 as the cost of 171 bushels of corn, or a little over 42 cents per bushel, which leaves about 47 cents per bushel profit. I have another piece on which the profit comes the other way. Farmer. *Oak Hill, N. Y.*

Cheese Making—Skill more than Soil.

An objection frequently brought forward, if the farmers of one locality are asked why the cheese they make does not sell at so high a price in market as that manufactured by their brethern in other localities—is "that the land is not adapted for cheese-making, and that it would be almost a waste of material for them to attempt to make good cheese." A recent English writer in commenting on this fact says, "On further inquiry as to whether it is the peculiar geologic formation, or any remarkable difference in the species of grasses peculiar to the district that is the cause, I am again informed, this time rather dogmatically, that the land is not adapted for cheese-making, and that 'it's no use asking any more questions, because everybody knows that it isn't.' Being thus thrown upon my own resources, I refer to my geological map, and endeavor to throw a little light upon the mystery by its aid. In vain; for I find that the three counties of England producing the best cheese are not situated on similar soil. Cheshire is on the new red sandstone; North Wilts and Gloucester are on the oolitic limestone; Cheddar, on the carboniferous strata."

Mr. Tegetmeier the writer alluded to, accordingly concludes that the cause of the differences must be sought in other sources; and there is little doubt but that it depends almost entirely on the process of manufacture.

In fact this conclusion is borne out by further testimony; the Agricultural Association of Ayrshire, Scotland, have made it the subject of careful inquiry, actually sending a deputation to inquire into the plans adopted in those counties of England which produce the best cheese. The decision at which they arrived was that the quality of the cheese depends wholly upon the observance or non-observance of certain simple precautions, and that the price of the cheese depends wholly upon its quality. They were better pleased with the method adopted in the Cheddar district than with any other; the best Cheddar cheese always realizes from $16 25 to $18 75 per cwt., while that of an inferior quality may be unsaleable at half this price. The general principles of the method are stated as follows:

"The milk is employed without the removal of any of the cream; for, as might be imagined, butter and good cheese cannot both be made out of the same portion of milk. The liquid used to coagulate the milk is rennet, which is obtained by steeping in water the salted and dried stomach of the calf; these *vells*, as they are termed, should never be used until twelve months old. It is a remarkable proof of the power of the animal juices, that the rennet obtained from one veil is sufficient to curdle enough milk to make half a ton of cheese. Before the rennet is added, the evening and the morning milks are mixed together, and the temperature of the whole is raised to 80°, by heating a portion and mixing it with the remainder. In one hour the whole is coagulated. Portions of the whey are then drained off and heated. The whole of the curd is now minutely and most carefully divided; after which, as much of the heated whey is added as will raise the temperature again to 80°. It is then left for an hour, when the whey is drawn off and heated rather higher than before. The curd is again minutely broken, and pail-fulls of heated whey are forced in, so as to raise the temperature to 100°. The whole is constantly stirred during the time, so that the curd becomes somewhat consistent. It is then left half an hour, in order that it may settle, when the whey is dipped out, and the last portions drained off without pressure. The curd is then cut into large slices, turned, and allowed to drain for half an hour, and when its temperature has fallen to 60°, it is subjected to a moderate pressure for half an hour. At the expiration of this time, it is broken fine in a curd mill, and the best refined rock salt added (in the proportion of two pounds to one hundred weight of curd,) made into cheeses, and placed in the cheese-press. The next morning it is turned and pressed again; and the third morning it is laid upon the shelf, having been previously laced up in a piece of canvass, to preserve the shape whilst drying. The drying is accomplished in a well-aired cheese-room, kept at a temperature of from 55° to 60°.

Spite of all that prejudiced ignorance asserts, there is no doubt but that the inferior character of certain kinds of cheese depends mainly upon three or four causes:—firstly, on the impoverishment of the milk by the removal of cream; secondly, on the employment of an excess of rennet, which produces a too rapid coagulation; thirdly, on the use of too high a temperature, from which results a hardness of the curd; and lastly, on the occasional want of cleanliness in the dairy. In the Cheddar plan—the low temperature of 80° in the first stages gives richness of taste, and the greater heat employed afterwards renders easy the separation of the whey.

The most extreme and ultra cleanliness is absolutely indispensable, as a single drop of milk sinking into an absorbent floor will cause the cheese made during a whole season to become sour and valueless."

The Annual Register of Rural Affairs.—"Brim full of good things," says the Ohio Cultivator. "Many a large dollar book is not worth half so much as this little volume, which can be had for only 25 cents."

THE UNITED STATES AG. SOCIETY.

The eighth annual meeting of the United States Ag. Society commenced its session in the Smithsonian Institution, Washington, Jan. 10—the President, Gen. TILGHMAN of Maryland, in the chair—Maj. B. P. POORE, Secretary, to whom we are indebted for an account of its doings, from which we make the following abstract:

The President read his annual address, referring to the reports of the secretary and treasurer to show the workings of the society and its operations during the past year, and also its present condition. He recommends an increase of the salary of the secretary, whose time, he states, has for several months past been entirely devoted to the business of the society. He also recommends the purchase of books for the use of the society. The Quarterly Bulletin published by the society had done much towards forwarding the interests of agriculture.

Reference is made to the annual exhibition at Chicago, and a detailed account given of its conduct and success—a success never before equalled by any previous exhibition of the kind in the country. Articles were on exhibition from twenty-two States and Territories, and the exhibition room was crowded daily. Suggestions were made as to the correctness of awards of medals; among which was a recommendation for the appointment of a general superintendent for this purpose. Recommendation was also made to change the time of opening and closing of the annual exhibitions; also for a change of discretionary premiums—on account of the difficulty in giving them out without dissatisfaction to the recipients—to diplomas. Recommendation was also made that the Presidents of each of the similar societies of Europe be made honorary members of this society; also, that application be made to Congress for a charter for the society.

Allusion was made to the late Harper's Ferry raid, as being productive of danger to the agricultural interests of the whole country, and members from both sections of the country (the South and the North) were called upon to do their respective duties in allaying the prevailing domestic dissension.

The President also recommended that the time for holding the annual meetings be changed from January to some convenient time in February in each year, because it has been found that farmers who are members can better attend during the latter than the former month.

The thanks of the Society were voted to the President for his address, and it was referred to a committee to report as to what action might be necessary to carry its recommendations into effect.

The Treasurer's report stated that at the last annual meeting the

Balance in the Treasury was,	$417.14
Receipts at winter meeting, 1859,	187.75
Receipts on account of Chicago Exhibition,	30,436.65
	$31,041.54
Payments on account of Chicago Exhibition,	26,302.46
	$4,739.08
Balance in Treasury,	340.60
Other expenses,	$4,398.48

The Secretary's report was then made, in which statement is made of the transactions of the Society in the publication of the Journal of Agriculture, and of the letters received during the year in answer to circulars, nearly eight hundred of which have required replies. The office at Washington has been open through the year, for the convenience of all interested in the subject of agriculture.

On motion of Hon. M. P. Wilder of Mass., a committee of one member from each state and territory present was appointed to report nominations for officers for the ensuing year.

On motion, President Buchanan, and ex-Presidents Van Buren and Tyler, were made honorary members of the Society.

Mr. Calvert of Md., referring to the defunct "Advisory Board of Agriculturists" which was summoned by D. J. Browne, last winter, said that to a sub-committee of the Board had been referred the question of the Secretary of the Interior, as to how our agricultural interests might best be promoted. That committee had unanimously reported in favor of the creation of a Department of Agriculture, with a cabinet officer at its head, and had made sundry valuable suggestions. He moved that a committee be appointed to wait on Mr. Whiteley, and ask a copy of the paper for presentation to the U. S. Society to-morrow. The resolution was adopted. Mr. Calvert, as President of the Maryland Agricultural College, invited members of the Society to visit the college before their return home.

Col. Johnson of New-York, said he hoped that this report of the Advisory Board would be brought forth, for it was the only real thing of value done by that body. He thought our agricultural interest would never be fully fostered and advanced until a department was created. He saw no great difficulty in the way of organizing a Department, and thought if our Members in Congress would debate the question awhile, it would be accomplished.

The President of the United States having attended the meeting by invitation, was conducted to the platform, and appropriately addressed by the President of the Society, to which Mr. Buchanan replied in a few brief remarks. The splendid Gold Medal, valued at $200, awarded to Mr. Fawks' for his steam plow, was delivered to Mr. Buchanan, to be by him presented to Mr. F.

After the President had retired, Mr. Loring of Mass., read a paper on the subject of cattle-breeding. The views expressed, excited some discussion, in which Mr. Conger and Col. Johnson of this State, and Messrs. Tayloe, Calvert, and Clemsen took part.

On the report of the nominating committee, the following officers were unanimously elected:

President—Hon. HENRY WAGER of New-York.

VICE-PRESIDENTS.

Alabama—N. B. Cloud.	Minnesota—H. M. Rice.
Arizonia—Sylvester Mowry.	Missouri—R. Barrett.
California—A. W. McKee.	New-Hampshire—H. F. French.
Connecticut—H. A. Dyer.	New-Jersey—Geo. Hartshorn.
Dacotah—A. G. Fuller.	New-York—B. P. Johnson.
Delaware—John Jones.	New Mexico—M. A. Otero.
Dist. Columbia—W. W. Corcoran.	Nebraska—W. F. Brown.
Florida—S. A. Mallory.	N. Carolina—H. K. Burgwin.
Georgia—Richard Peters.	Ohio—F. G. Carey.
Illinois—S. A. Buckmaster.	Oregon—J. H. Lane.
Indiana—Thos. H. Collins.	Penn.—Aaron Clement.
Iowa—Legrand Byington.	Rhode Island—Elisha Dyer.
Kansas—W. F. M. Arney.	S. Carolina—F. W. Alston.
Kentucky—W. L. Underwood.	Texas—Thomas Affleck.
Louisiana—J. D. B. DeBow.	Utah—W. H. Hooper.
Massachusetts—John Brooks.	Vermont—Fred. Holbrook.
Maryland—J. H. McHenry.	Virginia—W. A. Spence.
Maine—E. Holmes.	Wisconsin—T. W. Hoyt.
Mississippi—A. H. Harrison.	Washington Ter.—I. I. Stevens.
Michigan—Henry Ledyard.	

Executive Committee—Ex Officio members, Hon. M. P. Wilder, Tench Tilghman, and B. P. Poore. Members, Hon. B. N. Huntington, N. Y.; J. McGowan, Pa.; Hon. F. Smyth, N. H.; Jno. Merryman, Md.; Col. Horace Capron, Ill.; J. M. Cannon, Esq., Iowa; Col. Josiah W. Ware, Va.

Treasurer—Hon. B. B. French, Dist. of Columbia.

Secretary—Maj. B. P. Poore, Massachusetts.

THIRD DAY.

Mr. Calvert of Md., presented a series of resolutions expressing the sense of the Society in relation to agricultural education; also deploring the executive veto of the Morrill bill passed by Congress last year, and calling upon the agricultural societies throughout the states to co-operate with this Society in endeavoring to obtain the passage of a bill containing provisions similar to those contained in said bill. In his remarks Mr. Calvert censured the President for his veto of the Morrill Land-bill, and was replied to by Mr. Mann, when on motion of Mr. Kelley, the subject was laid upon the table.

The Society entered upon the consideration of the subject of the future establishment of an agricultural division by the government, either under the Department of the Interior, or as a separate and independent branch, with a cabinet officer at its head. A protracted and very interesting debate ensued, which resulted in the passage of the following resolution, introduced by Mr. Rockwell of Conn:

Resolved, That the Society would earnestly recommend the creation, at the present time, of a separate Agricultural Bureau in the Department of the Interior.

Addresses were then delivered by Dr. J. G. Cooper on the Forest Trees of America, and by Prof. Henry on Meteorology.

REGULARITY IN FEEDING.

Every good farmer knows that any domestic animal is a good clock—that it knows, almost to a minute, when the regular feeding time has arrived. If it has been accustomed to be fed with accuracy at the appointed period, it will not fret until that period arrives; after which it becomes very restless and uneasy till its food comes. If it has been fed irregularly, it will begin to fret when the earliest period arrives. Hence, this fretting may be entirely avoided by strict punctuality; but it cannot be otherwise. The very moment the animal begins to worry, that moment it begins to lose flesh; but the rate of this loss has never been ascertained—it is certainly worthy of investigation—and can be only determined by trying the two modes, punctuality and irregularity, side by side, under similar circumstances, and with the same amount of food, for some weeks or months together.

There is one precaution to be observed in connection with regular feeding, where some judgment is needed. Animals eat more in sharp or frosty, than in warm and damp weather. Hence, if the same amount by weight is given at every feeding, they will not have enough when the weather is cold, and will be surfeited when it is warm and damp. Both of these evils must be avoided, while a little attention and observation will enable the farmer to do it.

[For the Country Gentleman.]

ON CATTLE FEEDING.

In answer to "A Maryland Farmer," (see Co. Gent., p. 403,) I would say that the calves I intend to sell, I commence fattening when a few days old, by giving oil-cake meal, oat meal, or barley meal, along with their milk. This I continue until they are 3½ or 4 months old—then turn them to pasture; but I feed them hay or cut grass from the time they first begin to eat, until they are turned to pasture. Early cut clover hay is much the best and better than pasture, and I don't think costs any more.

The following winter I feed clover hay, with some meal. Good clover hay, with a pint of oil-cake meal, will make them grow finely. The next summer give good pasture, and take them to the yards whenever the pasture fails. Feed two quarts of oil meal daily, with cornstalks or good clover hay--the hay is best with me. In this way I have made them realize me from $47 to $60 each, when 22 to 24 months old. They generally consume from 750 to 1000 lbs. each, of oil-cake meal in all, by the time I sell them.

It is only occasionally that I raise calves. I can do better by purchasing two, three, or four years old cattle (3 and 4 best,) in autumn, and fattening in winter. These I generally feed on oil cake, corn meal, or meal from other grain, mixed with the oil meal. If oil meal costs little more per pound than other meal, I sometimes feed that alone all the time to part of my cattle. It is better than meal from grain to give lean cattle. They begin to gain much sooner on that than any other food I have ever tried. But no farmer ought to buy lean cattle to fatten in winter. They should be good fair beef to begin with. Still lean cattle I have often found to pay well when bought in Feb. or March. Feed them from eight to ten bushels of meal —say 480 to 600 pounds each—until the pastures are good, and then six weeks of good pasture will generally make them prime beef. In this way I have done very well; but I have generally bought these after selling off my fat cattle. I have, however, done better by purchasing those that have been fed meal for two months, where the farmer has lost hope of ever getting pay for his grain. Such cattle could soon be made thoroughly fat at no great cost.

I give the Maryland Farmer the way I have done; but I cannot now ride or drive about in cold weather, and must change my plan, as I find it very difficult to find a man who can purchase stock to meet my views. I have often thought it singular that farmers who see me selling steers from 22 to 24 months old, at from $47 to $60, (very few at the lowest price,) should keep theirs until 3 or 4 years old, and then not have them worth over from $20 to $40, without making an effort to do better. There is no intelligence or enterprise in this. I have no doubt there are numbers of farmers in the State of New-York, that make as good cattle or sheep as I do, but then they *are far between*, and perhaps not numerous; but I have done my best to have a better state of things. The only thing I ever kept in the dark, was when I commenced feeding oil cake meal. I was afraid if farmers were told how profitable it was, I would not get what I wanted, and for some years I said nothing on that subject. I said nothing about draining for some years after I commenced. I was afraid farmers would all go at it, and that would raise the cost on me; but it let me know that I did not understand human nature among the farming population so well as I thought I did—at least so far as feeding oil cake and tile draining were concerned; but they go the tile draining now, and they will follow with the oil cake, I have no doubt; but as a whole, their faith is very weak where additional labor and cost has to be encountered. JOHN JOHNSTON.

Near Geneva, Dec. 24.

[For the Country Gentleman.]

SPARRED FLOOR STABLES.

EDS. CO. GENT.—Observing in your paper some account of your Junior's visit to Tiptree Hall, I think it may interest some of your readers to learn that I am acting upon some of Mr. Mechi's plans, and propose following his teachings yet further, and sending the results to the CO. GENT. if acceptable.

I have two young bullocks and a pen full of young pigs, upon his open-boarded floors, and have come to the conclusion that they are "*the thing*." I had great fears, lest, in this cold climate, the droppings should freeze so as to stop up the spaces; but although my stable is far too cold and open, and we have had much cold weather of late, (as low as 10° below zero,) this has not been the case to any considerable extent. In my pig-pen, which is warmly constructed and pigs packed close, there is no frost at all, and they are perfectly clean and dry, as are the bullocks, although they have never been groomed. During the present scarcity of fodder the advantages of the system are peculiarly manifest. The bedding is set free for food. I cut mine up with hay, with a horse-power cutter, and feed horses, cows and sheep with the chaff. Double the number of animals can be kept, and large quantities of excellent manure, the pure article, can be made. The daily labor of bedding-down, and cleaning out the stables, which is considerable with a large stock, is entirely saved, as also the piling and repiling of the manure. Two or three minutes suffice to take up one of these floors, and a cart or sleigh can be backed in to take the "pudding" (as Mechi calls it) directly to the field.

The slats or boards should slip into a groove at either end, so that they may be easily lifted. I have no nails in mine. In cold weather I find the droppings have a tendency to pile up under the floor, but by lifting up two or three slats, a man can readily get down and level it. I have only had to do this once as yet, and my beasts have been in since the middle of Nov., besides which my pits are far too small, being only arranged in a temporary way as an experiment. My boxes are about 6 by 10, but for the future I propose making them smaller, say 5 by 7.6, so as to economize the animal heat. The pit under the

floor must be about 4 ft. in depth, to contain four or five months droppings. I hope next winter to have all my animals, except the horses, on these floors, and expect to find many of your enterprising readers adopting the plan. If by connecting the soiling system with the boarded floors, we can double our stock, and we may safely count on that, it will be great gain.

In practice I find no effluvium or unpleasant smell whatever to arise from the droppings, as they run together so as to exclude air and thus prevent fermentation. Also, I find no difficulty in getting the beasts to go on to the floors, after the first night or two; they run in just as willingly as those that are on the old straw beds. With all deference, I submit that too much has been said about the *comfort* and *warmth* of bedding *under* animals. It must be recollected that on my floors the beasts lie perfectly *dry*, while on a straw bed they are generally more or less wet, which is not conducive to *comfort;* and further, if I lie all night without any bedclothes *over* me, I shall not be kept *warm* by the bed of down that may be under me. So as I keep in my own animal heat by means of covering, I keep in that of my animals by close packing, and for *health and comfort*, I think they agree with me in preferring a dry hard bed, to a wet soft one. W. R. Forster.

Canada West.

[For the Country Gentleman and Cultivator.]

Estimate of the Value of our Dairy Products.

Messrs. Tucker & Son—I have not the egotism to suppose that I shall do justice to the subject on which you have requested me to furnish some papers for publication in your journal.

The subject is too extensive, the facts are varied, the conditions involved are in part obvious, but in very essential and important particulars recondite, and besides my knowledge and experience are deficient.

Milk of standard quality rapidly decomposes. Curd, the product of milk, including both casein and butter, becomes almost as speedily putrescent and disgusting. It is nevertheless true that this animal product, milk—subtile, sensitive, perishable—is the basis of a department of *husbandry*, inferior to no other in importance, viewed in its present condition or future promise.

No doubt there has been much slovenly practice, and perhaps in many cases want of success in the absence of system, method and *management*, while prejudice has whilom elbowed it out of genteel society.

Were I asked the question, "Is Cotton king?" the reply would be, "No; but Milk is;" and to justify this answer a few particulars shall suffice.

It is a truism that a judiciously selected herd of dairy cows, well cared for and thoroughly handled, will, on an average of a series of years, in lots of thirty to eighty, more or less, produce annually from each cow 450 to 550 pounds of cheese. Allowing something for smaller product of cows under four years of age, not usually embraced in such a selection, and also for the fact that the entire number of cows will probably fall below the average quality of dairy herds, and the minimum average ought to be stated at no less than 400 pounds of cheese as the product per cow. The standard estimate of cotton bales answers in weight to this number, so that one bale of cotton, and the yearly product of one cow in cheese equivalent, are alike in weight. As to prices, the winter's sales for the average of the last seven years are nine and one-third cents at the home delivery within fifteen miles of the farm, and this is by no means the highest range of cheese sales which might be quoted.

The cotton bales reported in census of 1850, were..... 2,445,793
The cows of 31 States and District of Columbia were..... 6,385,094

Stating the home price of cheese and cotton as six to ten, which doubtless gives to the fibrous staple great advantage in the comparison, and we have a result of estimated cheese value of $153,242,256 per annum, and of cotton $97,831,720, while the total domestic exports were less than one hundred and thirty-seven millions.

The four special crops, tobacco, rice, sugar, and cotton, (only two of which are food crops,) aggregate 1,630,000,000 pounds, while the milk (cheese equivalent) aggregates 7,554,000,000 pounds.

Referring again to the census statistics of 1850, the total number of pounds of butter, in round numbers, is 313,000,000, and multiplying it by three as a cheese equivalent, gives 940,000,000 pounds, to which add the cheese reported, 105,000,000 pounds, and this makes an actual cheese product of *one thousand forty-five million pounds*, exclusive of the vast amount of milk consumed in its primitive state, by families in country and cities; and also by animals, to produce other forms of food substances as veal meat and raising young stock.

New-York farmers may smile at the very modest calculation of twenty-four dollars product per cow in the above estimate. If so, they can take an enterprising dairyman's standard of money product, and double the figures, thus showing an excess of *one hundred and sixty-three million dollars*, yearly product from this humble branch of husbandry, over the entire aggregate of *domestic exports*; and of sixty-four million dollars over the aggregate of the far famed and universal corn crop of this country, estimating the price at forty cents per bushels.

The area of Indian corn is given at thirty-one million acres, while that of hay and pasture is put down at thirty-three million acres.

It may be safely estimated that more than one million persons are more or less employed daily in this department of production for at least two-thirds of each year.

Onondaga Co., N. Y. Jonathan E. Pettit.

Subsoiling—Liquid Manure—Green Crops.

Messrs. Editors—Can you inform me which is the best pattern of subsoil plows? I have a farm which has been plowed in five foot lands. The soil, which is clay, seems to be tenacious, and holds water a long time, although it has sufficient fall, and is not at all springy. Do you not think subsoiling would obviate this, and enable me to plow in wide lands, and use a mower and reaper, which, in the present state of things it is impossible to do? How often is the operation necessary? Would subsoiling with every corn crop answer through the rotation? It has never, I believe, been tried in this neighborhood, and I think it the thing required.

I have a pump situated below the barn-yard, so that the washings from the manure render the water entirely unfit for use. Can you or any correspondent inform me of any remedy?

I should like to know of any of your readers who have tried it, what is the best grain to sow for plowing in green for manure—the proper season to plow, and the best crops to sow or plant afterwards. Does this course answer in heavy soils as well as in light ones?

Bucks Co., Pa. Henry C. Davis.

For land nearly clear of stone, the reversible subsoil plow represented in the annexed cut, (fig. 1,) is the best.*

Fig. 1.

But if there are many stones in the soil, this plow will be thrown out, or will be difficult to enter among them; in which case one with a much shorter sole or shoe will be necessary, like that represented in fig. 2, which is one of the best forms of the ditching plow. The ditching plow has been extensively used for subsoiling by different persons, and has been found to answer well, but it is not equal to that shown by fig. 1, for clear soils.

Fig. 2.

Subsoiling is of little use on heavy wet soils, before underdraining, or its effects are at best but temporary, and last hardly a single season. If the subsoil is broken with it in spring, (and it must be *late* in spring, after the subsoil has had several weeks to become dry enough, or the plow will only work it into mortar,) it may continue mellow through the summer; but the fall rains, or if not the fall, those of spring, will settle the earth back again into its

* It is manufactured by Holmes and Stringer, Munsville, N. Y.

original compactness. Underdraining before subsoiling is of the utmost importance, and will prolong the beneficial effects of the subsoiling through several seasons. We would advise our correspondent to try thorough underdraining, if it is only to the extent of an acre or two, by way of experiment. He can also, if he chooses, try subsoiling without it. Compare the results of the two operations separately, with their results combined.

Washings from the barnyard should never be allowed to run off. Put up eave troughs on the buildings, so that the water from the roofs may not wash the manure; make the manure yard concave or "dishing" if necessary; and keep enough straw or other absorbing substance to hold all the liquid portions. The advantages in saving this valuable part will be greater even than that of the pure water from the well.

The three crops most commonly sown for plowing in, are clover, indian corn, and buckwheat. Clover is usually regarded as best, and is an excellent crop to precede wheat. Buckwheat is more easily raised, but is less enriching. Perhaps, however, this disadvantage is nearly balanced by the two crops which may be buried in a single season. Corn has been less tried; but the heavy growth which it yields when sown in furrows at the rate of two or three bushels per acre, strongly commends its use. All these crops, but the corn especially, need rolling or harrowing, to enable the plow to cover them. Autumn grain may be sown upon the inverted earth, or spring crops the year following. The best time to plow in is between the time of flowering and the ripening of the seed. The decay of the vegetable fibre takes place more rapidly in light than in heavy soils; hence in the latter the plowing may be shallower, and it should be a little earlier, when the fiber will decay more readily.

SMUT IN WHEAT.

We have received a few communications, taking the position that smut in wheat is caused by an *insect*. One of them states "that all the *theories* and *suppositions* of the fungus origin of smut, rust, &c., are founded upon mistaken views of the subject, I many years ago satisfactorily demonstrated, by long continued observation and experiments on my own farm."

We are not however informed what were the nature and character of these observations and experiments, and especially whether they were conducted under a powerful achromatic microscope—an indispensable requisite to such investigations.

We never yet found the man, no matter how much he might have previously doubted the fungus character of rust, who questioned this character a moment after a careful examination through such a microscope. The plants are most distinctly seen with root, stem, and seed-vessel, so far as cryptogamous plants are furnished with these parts; there is no chaos or confusion about it; every single plant is like all the rest. And the seeds are so minute that they will flow through the sap-vessels with perfect freedom, and impregnate every part—ready to burst into living plants whenever peculiarities of the weather favor their development. The same is true, in part, with the smut in wheat.

We have found by our own experiments, and many other observers have arrived at the same result, that washing smutty seed, greatly lessens the tendency to smut in the product; and washing in lime water, nearly or wholly destroys this tendency. This could not well be the case, if an insect produced the evil after the head from this seed is formed. The experiment has also been many times repeated, of impregnating with smut through the seed sown.

If our correspondents will procure the best achromatic microscopes now made, and make a free and accurate use of them, they will probably make many new discoveries of a highly interesting character. For, to undertake to decide questions of this kind, without the most powerful magnifiers, would be like a person undertaking to read the common type of a book across a river or at midnight.

[For the Country Gentleman and Cultivator.]

PRODUCT OF ONE COW

Editors of Cultivator and Co. Gent.—Having seen various statements in your journal of the quantity of milk given by different cows in stated periods, I send you a statement of two years doings of one that I owned for the last five years, but lost in calving a few weeks since. She was said to be one-half native and one-half short horn; her appearance warranted *the latter*, at least. Living in the city, I could make no dependence on pasture, but have had to depend on what I gave her in the barn. She gave the most milk the first year, as you will see by statement annexed. I account for this in two ways. I milked and fed her myself, and I am satisfied I can make more milk (in the pasture I have) to have my cow calve in winter, when I can feed, cut feed, roots rowen oil meal and flax seed, than I can on grass, when I can't add the former. I am not one of those who are able to make large quantities of milk on grass alone. I can't obtain the latter, and therefore had to find substitutes, or rather auxiliaries, and plenty of them.

I have often heard it advanced that cows giving large quantities, could not give good milk. In answer to this, I will say that one season, when farrow, I took the cow into the country where my family were staying, from July to October. When she was giving on an average nine quarts daily, after using all we wanted in a family of seven persons, my wife made over seven pounds butter per week for fourteen successive weeks, which I think is proof positive that her milk was A. 1. The most she ever gave me in twenty-four hours, milked 6 A. M. and 6 P. M., was twenty-three quarts one and a half pints.

	Quarts.	
1856—Took calf away Feb. 1st,		
Amount milk from July 1st to Jan. 1st,.....	2,459	
do from August 1st to Feb. 1857,.....	1,928	
Number of quarts in one year,.....	4,387 at 5c	$219.35
1857—Took calf away July 1st.	Quarts.	
Amount milk from July 1st to Jan 1st.....	2,239-2	
do from Jan. 1st. to July 1st., 1859,...	1,683	
Number of quarts in one year,.....	3,922-2 at 5c	$196.12
Total for two years,.....		$515.47

All the milk not used in the family was sold at the store at 5c per quart, many milk carts selling at 6 the year through. H. B. Congdon, *Providence, R. I.*

Asparagus and Pie-Plant.

The Gardener's Monthly recommends that Asparagus be planted "twenty inches to two feet from plant to plant, and the rows eighteen to twenty inches apart." [The plants are often set four times as near together, in which case it is impossible for them to develope themselves properly and become of the largest size. For horse-culture, the rows may be 30 inches apart, and the plants 15 inches in the row. With rich soil, this will make "giant asparagus of any sort."] A depth of two feet is recommended for the soil—and the roots set four inches under the surface. Fertility of soil is all important. The editor says there is "a good deal of humbug" about the recommendation of salt for asparagus.

Pie Plant.—The following sorts the same journal states to be best: Prince Albert and Tobolsk for earliness; Magnum Bonum, Victoria, and Cahoon's Mammoth, for size and productiveness; Linnæus, for size and quality; and Prince of Wales and Crimson Perfection, for beauty of color. Each plant should have an area of at least two feet square for its proper development, and a very rich soil.

Inquiries and Answers.

CAHOON'S BROADCAST SOWER.—In answer to inquiries, we can state that we have given the small or hand machine a full trial. It answers admirably for sowing grass seed, which it scatters evenly and rapidly, and the seed being light, it is not laborious to carry. It also sows wheat, barley, and other large grain with great expedition and evenness—*while the operator is working it*—but it is necessary for the workman to stop so often to fill his hopper with seed, that little time is gained over common hand sowing. The labor is also considerable. These remarks apply to the ten dollar machine. The thirty-five dollar one, drawn by a horse, we have not tried, but have no doubt it obviates all these objections, and we see nothing to prevent its sowing eighty acres a day, as some of the certificates state. D. H Furbish, of Portland, Maine, is the proprietor of this machine, and will give any information in relation to it.

BLOODY MILK.—I have a young cow that his given bloody milk out of one teat for several weeks. Will you please give me a remedy for it. A. M. [The treatment must depend on the cause. If occasioned simply by an injury, time will cure it. If from garget, the treatment must vary with the symptoms, which until we know, it would be very difficult to prescribe understandingly—as the disease might be benefitted in one case by light food, and in another might require only local treatment. A general remedy, for all circumstances, so often recommended for a disease, is empiricism.

SHEEP VS. SWINE.—I will feel myself under many obligations, if some of your numerous readers would inform me through the columns of your paper, in which there is most profit—raising sheep or hogs, where pork is usually worth from $3 50 to $4 gross, and bacon from 8c. to 10c., and where wool is worth from 25 to 40c. per pound, and sheep for butchering bring $2 50 to $3.50 per head. Also which is the best and most profitable breed of sheep—also the best breed of hogs for farmers generally. B. B. R. *St. Joseph, Mo.*

BEANS FOR HORSES AND COWS—Are New-York farmers in the habit of raising beans for horses and cows, and if so, how are they fed? Do you consider they make as strong diet as corn? Is the current year's crop considered injurious? English farmers say they should not be used until a year old. Understanding that northern farmers raise peas and beans extensively for stock purposes, we who are turning our attention somewhat to the latter crop would like to have the experience of others. SUBSCRIBERS. [Will those who have tried this material for feeding, please report the results of their experiments?]

PLANTS GROWING WITHOUT SEED.—Is *seed* necessary to vegetable production in all cases? Where the chemical elements of certain vegetables exist abundantly in the soil, will they not spring up and assume vegetable forms without the germs of seed? Instance the thousands of hickory groves springing up throughout the west since being settled, where none existed before. L. C. *Wisconsin.* [No plant ever springs into existence spontaneously. There must be either a seed to start the individual, or buds, eyes, &c., to extend or multiply that individual after having thus attained existence. Seeds exist in the soil or are scattered in innumerable ways; which not being understood by superficial observation, the notion is sometimes adopted that new individuals spring spontaneously into existence, or else grow or are changed from other plants. It would be as impossible for farm animals to spring into being, without progenitors, by merely heaping together oats, hay and corn, or milk and porridge, as for plants to do the same by the use of heaps of manures or "elements."

LITTLE GIANT MILL.—Can you inform me where I can obtain the Little Giant Mill, for grinding corn in ear, &c., and whether there are better mills for the purpose? S. BARSTOW. *St. Albans, Vt.* [It is furnished by Emery & Co. of this city, at the following prices: No. 2 for $40 with levers, and No. 3, $45, less 5 per cent. cash at retail We have never used the Little Giant, but have given a thorough trial to Joice's Star Mill made by Hildreth & Co. of Lockport, and find the latter an admirable machine. We are unable to speak from experience of their comparative merits]

BITTER HONEY.—Why is honey some years very bitter? This year it was so bitter that it could not be used—neither did the bees swarm. Can any one tell the cause of the bitterness? A. R. *Dallas Co., Ark.*

TOBACCO CULTURE—Having recently commenced farming, and believing that I have land that will produce tobacco, I take the liberty of asking you the proper way of planting the seeds, and also the proper time. S. B. [Will some of our readers please furnish the desired information?]

HORNLESS CATTLE. (*A subscriber in Indiana.*) This tendency in cattle exists with the breed. The Galloway cattle are nearly all hornless. The same peculiarity exists in the Norfolks, Suffolks, &c. A small portion of the same tendency is diffused through many of the mixed race in this country, occasionally becoming developed in hornless animals. The constant mixture of blood prevents them from becoming a distinct race as in Britain.

BREED OF SWINE.—What breed, or how crossed, is the breed of hogs fattened around Auburn? Our butchers consider them the best hogs that ever came to our market, or in fact, any other. W. *Utica.* [Our impression is, they are a mixture of Suffolk and Leicester, with some of the older native breeds, without any very certain amount of each. We hope some of our Auburn readers will give us some particular and accurate information.]

PLAN OF A DAIRY.—I wish to learn through your paper, the best and most appropriate way of constructing a dairy for a private family, one that will best keep butter and milk during the warm season of the year, where the water is thrown up by the hydraulic ram. S. [We have not met with a better one than that described on p. 217, first volume of "Rural Affairs," and although that is partly intended for a market dairy, yet it is equally applicable, constructed of proper size, for a private establishment]

FALL PLOWING.—What do you think of plowing sandy soil in the fall? I manure it one-half with fine manure, and the other half leached ashes, and plow 6 inches deep. What would you put on it in the spring? J. E. ORVIS. *Massena, N. Y* [Fall plowing does well for early sown crops—barley would no doubt succeed well—and perhaps oats or spring wheat. Unless the soil is quite light, it is apt to become too compact before planting time, unless re-plowed or mellowed well with a gang plow, or Shares' harrow, just before planting.]

DOUBLE MICHIGAN PLOW.—Can you inform me to whom, and where I must apply, for the right of making up and disposing of the Double Michigan sod and subsoil Plow—also, what year the patent was issued? Your early attention to the above will oblige, W. T. [We are unable to answer.—Will some of our readers favor us with the desired information?]

FEEDING ROOTS.—Please inform me through THE CULTIVATOR, the best plan of feeding turnips and Ruta Bagas to sheep and cows. A. B. [Slice them up, and feed them to the animals—if they do not readily eat them, add meal and a very little salt. To prevent any injurious effect, begin moderately, and always feed with a portion of dry fodder. Sheep soon learn to scoop out turnips with their teeth, without slicing. Willard's root slicer costs ten dollars and cuts a bushel a minute; but in the absence of any machine of the sort, a steel spade, ground sharp, will cut rapidly, if the roots are placed in a shallow box with a hard plank bottom.]

SPARRED FLOORS.—I am about building a hog stable, and think of laying stable floors for cattle upon the "spar plan." Your correspondent, W. R. Forster, Canada West, suggests that they be dug four feet deep under the floors. Suppose in the spring, this space to be full of the "pudding," where will a man stand to shovel it into a cart backed up to the stable door. It appears at first thought, as if his footing must be very soft, and rather uncomfortably deep. Why is it best to have "boxes" instead of stalls? Would not quarrelsome cattle fret their weaker mates? Will your correspondent please state what he considers the best size of pens for hogs, and whether hogs will do well raised in a pen without ever coming to the ground. I have a boiling apparatus, and wish when I get my pens made, to try the effects of cooked and raw food upon the thrift of the animals. L. F. D. *Troy, O.* [We shall be glad to hear from Mr. Forster and others as suggested, and hereafter shall have more to add ourselves upon the subjects alluded to. Meantime the views and experience of readers, either at home or abroad, will be very welcome, both to the writer of the above and doubtless to many others.]

LIME FOR CATTLE.—In your account of Mr. Clift's farm, a mixture of salt and lime is recommended for preserving hay when got in green. Would not the lime be injurious to stock, fed on the hay, by its caustic nature, and also by making the hay dusty? WM. F. BASSETT. [We have never used lime with salt for hay, but the latter only—and therefore cannot speak from experience of its effects. It certainly should be used very sparingly if at all, which we question.]

AN ODD FELLOW.—Morpheus, for he is undeniably a Nod fellow.

SWINE FED ON SKIM-MILK

We published a few years since a statement of the successful feeding and fattening of swine on skim-milk, as practiced by Joseph Greene of Macedon, N. Y., a mode, however, not entirely new. He fed spring pigs through the summer, and when six or seven months old, they usually averaged about 300 pounds each. Three, at seven months, weighed in one instance, after being dressed, no less than 956 lbs. in the aggregate. Another animal at six months and ten days, weighed when dressed 298 lbs. He ascribed his success to feeding *undiluted* milk, or in its most concentrated state.,—without any water thrown in. This made them grow rapidly, with solid square bodies, and not like the flabby animals produced when much liquid and little nourishment are given. The fattening was completed on the ground meal of *old* corn. They did not thrive well on new corn, and failed on "nubbins."

Several others have adopted a similar mode of treatment, with like success. One instance that has recently come to hand, is the following, reported in a late number of the *Union Springs Herald*.

"David Anthony killed, on Saturday last, a litter of eight spring pigs, about 8½ months old, and the total weight of which were 2,350 lbs.,—an average of 293 lbs. each. The lightest one weighing 280, and the heaviest 320 lbs. We call that hard to beat. If any one can do it, send on the figures."

On inquiring personally of David Anthony as to the mode of feeding adopted, he informs that these animals are chiefly indebted for their rapid growth to the skim-milk he gave them, of which he had a plentiful supply. He finished feeding them on 15 bushels of ground Canada corn, which was all the grain he gave them. He intends to plant a few acres of the Canada corn for fattening his swine another year, as it is fully ripe before the first day of autumn, and is therefore found to be nearly equal to old corn for fall feeding.

[For the Country Gentleman and Cultivator.]

How Much Corn will Make a Pound of Pork?

Messrs. Editors—On the 3d of Nov., 1859, I built a small, tight pen, and covered it well. I put in it a small sized shoat, but in good condition, and inclined to fatten easily, and weighing 92 lbs. gross. His drink was well-water, and his food corn in the ear exclusively, weighed to him 100 lbs. at a time. The first 100 lbs., weighed the same day the hog was shut up, lasted till the 17th—14 days. Second 100 lbs., weighed Nov. 17th, lasted till Dec. 2—16 days. Third 100 lbs., weighed Dec. 2, lasted till Dec. 14—12 days. Fourth 100 lbs., weighed Dec. 14, lasted till Jan. 1—17 days. Jan. 2d & 3d a few ears were given him, not weighed, the amount, however, not equal to the waste. Jan. 4th killed the hog. Live weight 146 lbs.—net weight, 116 lbs.

Recapitulation.—The hog ate in 61 days, 400 pounds corn, or about 6½ lbs. per day. Live weight at shutting up, 92 lbs.; live weight at killing 146 lbs.; increase in live weight 54 lbs., or a little less than one pound per day. 400 lbs. ear corn at 70 lbs. per bushel, equals 5 5-9th bushels, and at 35 cents per bushel, is $2.00—54 lbs. pork, live weight, worth at 4 cents per pound, $2.16, or a net gain of 16 cents to pay for trouble of feeding two months.

Further Calculations.—At killing, live weight 146; net weight after dressing, 116; loss 30 lbs., or a little over 20 per cent. By the same ratio, his net weight at shutting up would be 73 lbs.; increase in net weight 43 lbs., worth, at say 5½ cents per pound, $2.36, or 36 cents more than the corn fed to him was worth in the crib.

Remarks.—The hog when shut up was 7 months and 2 days old, and at time of killing was 9 months and 4 days old. He was small boned, but fattened very easily, and for some days before killing it was difficult for him to get up or breathe. The corn with which he was fed was very sound and good, and I occasionally gave him ashes and stone coal, to promote his digestion, destroy worms if any, and sharpen his appetite. A. S. Proctor.

Rome Farms, Illinois, Jan. 6.

[For the Country Gentleman and Cultivator.]

TO PREVENT LICE ON CALVES.

Editors. Co. Gent.—It is generally conceded that "an ounce of preventive is worth a pound of cure," and as I often see remedies for *killing* lice on calves, such as snuff, tobacco water, grease, &c., I will give a *preventive*. It is safe—no injury to the animal will follow its use, and if regularly attended to during the cold months, lice will be scarce. It is as follows: take of shorts one bushel, and a like quantity of corn, barley or oat meal, and mix well together—give each calf a pint of the mixture night and morning—it can be fed on cut hay dampened; a better way, however, is to add boiling water sufficient to scald it, and let it stand until nearly cold, and then feed it in the form of a slop. If oil meal can be conveniently obtained, a small quantity may be added to advantage. They should be warmly stabled, and have all the good hay they wil eat, and a full supply of pure water twice a day. The above recipe is applicable to older animals, by increasing the quantity according to age and size. J. L. R.

Watertown, N. Y.

[For the Country Gentleman and Cultivator.]

CULTURE OF THE SWEET POTATO.

Friend Tucker—I will try to give you our mode of raising sweet potatoes in Gloucester county, N. J. We begin by making a hot-bed for sprouting the potatoes.—We dig a trench six feet wide; then put some old hay or corn stalks in the bottom; next put eight or ten inches of stable manure; press it down lightly. We then cover with two inches of fine earth, and put in the potatoes, not so near as to touch one another, and cover them with about two inches of fine earth. We next prepare the ground the same as for corn—mark it out both ways with a small plow, two feet nine inches apart, and put in a small shovel full of good short manure, and make a small hill on the same. About the middle of May we commence pulling sprouts, and setting them in hills, one sprout in a hill. We use the cultivator and hand hoe pretty freely, taking care to keep the grass and weeds out. Gloucester county goes pretty largely into sweet potatoes, many of us planting from twenty to forty acres. We allow one bushel of potatoes to sprout sufficiently for one thousand hills. Joshua Pine. *New Jersey.*

Connecticut State Agricultural Society.—At the annual meeting, held at Hartford, Jan. 11, the following officers were elected:

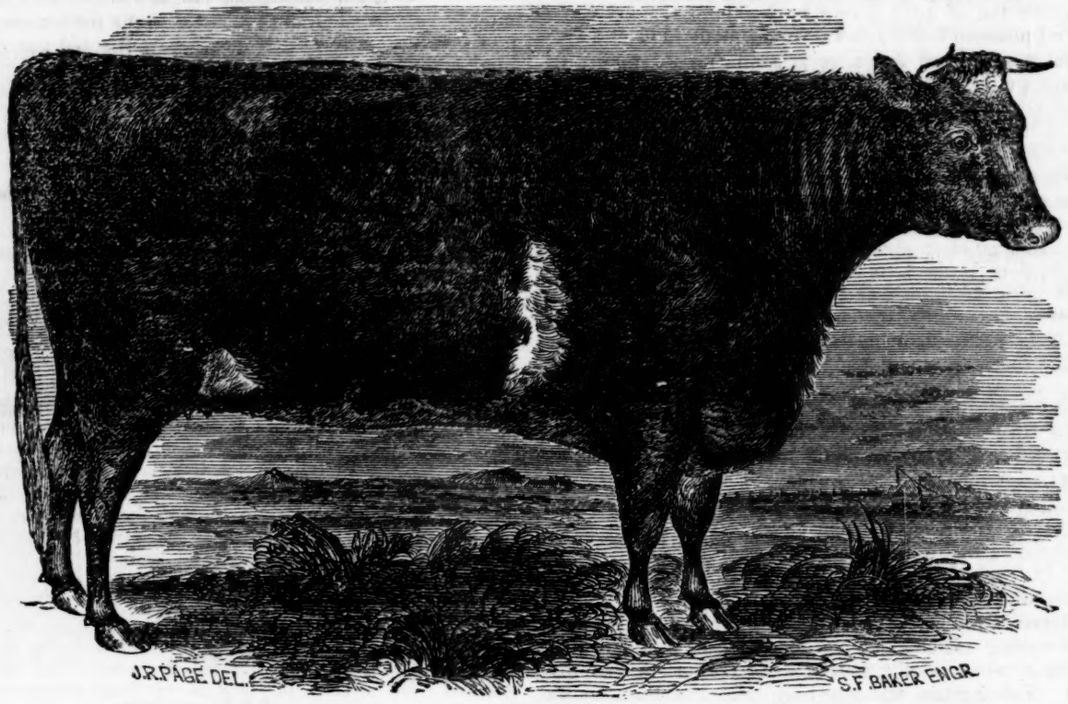
President—E. H. Hyde, 2d, Stafford.
Vice Presidents—Robbins Battell, Norwalk; John T. Norton, Farmington.
Directors—Charles F. Fond, Hartford, Hartford Co.; Washington Webb, New-Haven, New-Haven Co.; James A. Bill, Lyme, New-London Co.; George Osborne, Redding, Fairfield Co.; Charles Osgood, Pomfret, Windham Co.; Abijah Catlin, Harwinton, Litchfield Co.; Levi Coe, Middletown, Middlesex Co.; R. B. Chamberlin, Coventry, Tolland Co.

Henry A. Dyer continues as Secretary and actual agent and business manager. The Treasurer's report shows:

Expenses, 1858 and 1859,	$12,624.39
Receipts,	14,726.80
Balance on hand,	$2,102.31

☞ An interesting report of the discussions at the winter meeting of the Fruit Grower's Society of Western New-York, held at Rochester last week, will be found in our Horticultural Department. The following officers were elected for the present year:

President—Col. B. Hodge, of Buffalo.
Vice Presidents—J. J. Thomas, Union Springs; Wm. R. Smith, Syracuse; W. R. Coppock, Buffalo.
Treasurer—W. P. Townsend. Lockport.
Secretary—C. P. Bissell, Rochester.



2d Duchess of Airdrie–Bred by R. A. Alexander of Woodford Co., Ky.

Those who have visited the beautiful Short-Horn herd belonging to R. A. ALEXANDER, Esq., of Woodford Co., Ky., will not need to be reminded that among the choicest of them, the "2d Duchess of Airdrie" occupies a high rank. She is red and white, calved 28th September, 1855, and was sired by "2d Duke of Athol." Her dam, "Duchess of Athol" was sired by "2d Duke of Oxford," and her grand-dam "Duchess 54th," carries her back on one side to "2d Cleveland Lad," and on the other to a long line of noted "Duchesses."

TREATMENT OF RINGBONE.

Can you inform me what would cure a fine mare I have, of what is called ringbone, which she has had for something near one year without my being able to find a remedy. CHS. ALEXANDER. Posey Co., Ind.

There is no cure for confirmed ringbone. It is supposed to be hereditary, and the tendency is perhaps hastened by sprains or jars, in driving rapidly over a hard or very uneven road. To prevent it, use horses carefully, and *never breed from those who have it*, or from the relatives of such. When the disease first appears, *rest* is no doubt the best remedy. Burning, formerly so much practiced, is now generally regarded as both useless and cruel. A scar should never be made in treating it. Remedies causing violent external inflammation often extend further in, in their influence, and frequently increase the disease. The application of acetate of cantharid s is recommended by Dr. Dadd. When the part is hot, apply cold-water bandages.

There is no doubt that many of the remedies for various diseases, but for this more particularly, owe their supposed efficacy to compelling the animal to *rest*.

[For the Country Gentleman and Cultivator.]

ECONOMICAL FEEDING OF STOCK.

MESSRS. EDITORS—"The harvest is past, the Summer is ended,"—Autumn with its almost constant Indian Summer, has passed quietly and dreamily away, and Winter with its stern and exacting realities, is with us. The farmer and his beasts have toiled and sweated hard, during the months that are passed, to lay up a store of food for that season, which, north of Mason and Dixon's line, occupies about one-half of the entire year, and seems to have been designed for the purpose of sharpening the faculties of animal nature, and preventing the undue development of man's acquisitiveness. Certain it is that the great majority of mankind have hard enough work of it to accumulate sufficient in summer to satisfy the demands of winter.

To the hard-working farmer, the subject of "the economical feeding of stock," is of intense interest, and second to none in importance and practical utility. This has always been so, and always will be so in this climate; and yet how little is certainly known, or has been demonstrated by careful experiment, that would be satisfactory to the anxious inquirer or new beginner in practical agriculture.

The present is the season peculiarly appropriated for the discussion of this subject, and I do hope that you and your valued correspondents will "ventilate" it as thoroughly as the circumstances of the case will allow. Perhaps the present scarcity of feed in your State, will lead to more careful attention in preparing and disbursing the stock of cattle and food, thereby one more ray of light be shed on this at present rather dim subject. Why is it that none of your wealthy farmers have not taken this matter in hand and given us detailed experiments, such as we find in English books. Surely they have the means and the leisure. The English experiments are so mixed up with *turnips*, that they are of but little use to us. We want experiments on our own soil, in our own stables, under our own peculiarities of climate, and with our own varieties of feed.

In a late number of the Co. Gent., in the article on "Cooking food for Swine," you well remark "that there exists the most singular diversity of opinion in regard to cooking" their food—some asserting that grinding and cooking trebles the value of corn, while others maintain that it does not nearly double it; and so it is with all kinds of stock—no two agree.

I freely admit and deeply feel that the subject is a very complex one, and cannot be thoroughly discussed even in a volume, much less in a single sheet, or by as humble a pen as mine. But let me indicate my view of the matter, and give a page from my own experience.

The economical feeding of stock is empathatically a matter in regard to which "circumstances alter cases," and the conditions are so perpetually varying that no set of rules

can be devised, applicable to all cases. What is best at one time may not be good policy at another.

In the fall of 1851, living in Northern Ohio, I found myself possessed of 13 cows, with a small mow of hay, a short crop of oats, and a very small crop of very small corn, together with a small pile of very nice wheat straw. I had been in the habit for many years, of getting all grain fed to stock, ground, and had been strong in the faith that that was the only right way; but the excessively muddy roads, to which we were generally subjected there, and the labor and expense of grinding, were exceedingly irksome. I concluded to try an experiment.

I had a good stable for my cows, with stanchions and a tight floor to feed on. A gutter ran along behind to catch their droppings, and these were thrown out every morning for a fine sow to work over, who I expected would make an excellent living thereby. I was going to feed my corn unground, and the oats unthrashed, but hoped the sow and poultry would pick up the waste.

In the morning I fed each cow a sheaf of oats, at noon a little straw, and at night two or three small ears of corn, and a little more straw. This I did until about the first of March, when hay took the place of straw. Everything was licked up clean.

Now for the result. I expected grain in the gutter, but am satisfied that not a pint a day was dropped by the cows, and was compelled to feed the sow as before. The cows came out in the spring as bright and hearty as any I ever wintered in my life, and I was satisfied that the economy of the thing was all right.

The experience of that winter did not, of course, prove that grinding grain, under any and all circumstances, was a needless expense, but it did suggest to my mind one thought, and also illustrated the proposition that "circumstances alter cases." The thought is this—that the advantage of grinding and otherwise preparing food for cattle to be kept in store condition, was not as great as for those to be rapidly fattened. Ruminants are furnished with a very strong digestive apparatus, and if fed only sufficient to keep them in good fair condition, I wouldn't give any man much for all the waste he could gather from 100 head in a whole winter, fed on unground grain. In this section, "going to mill" is a serious business, for the millers generally contrive to "keep the grain and take the bag for toll." But I must close, and will only add that what I have said applies solely to store cattle, and that the case with cows giving milk is very different. HAWK EYE.

Keokuk, Iowa, Dec. 26, '59.

DADD ON THE DISEASES OF CATTLE.

This is a larger, more mature, and more perfect work than Dr. Dadd's excellent and well known "Cattle Doctor," and this is saying a great deal. It is not a revision and enlargement of his former book, but appears to be written wholly new. In arrangement it has some important advantages, the division of diseases being simple, natural, and well adapted to ordinary referenee. For example, under the head "Organs of Respiration," we are furnished with what is known in relation to croup, inflammation of the lungs, consumption, bronchitis, catarrh, sore throat, &c. The "Diseases of the Digestive Organs," embrace hoven, diarrhea, inflammation of the bowels, colic, &c. Other diseases are similarly arranged under heads designating different parts of the system. There are a considerable number of valuable wood-cut illustrations.

Those who know Dr. Dadd are aware that he declares uncompromising hostility to the old cut-and-slash, scour and burn, blister-and-bleed system, and in some instances he may carry his assaults too far. But if he errs, it is a pretty safe kind of error on the side of gentle treatment and humanity, and can appeal to nature's restorative power. We have seen enough of diseases in animals to learn that much that is ascribed to medicine, takes place often as well or better under good nursing without medicine; and also, that sometimes remedies are of the utmost importance. We know of no writer on the subject who has discriminated better, if as well, between the two courses of treatment, than Dr. Dadd.

The work is published by Jewett & Co. of Boston, and C. M. Saxton & Co. of New-York, and is an indispensable book for every farmer who would understand well the management of his cattle, both in health and under the influence of disease.

VERTIGO IN HORSES.

EDS. CULT. AND CO GENT.—I have a horse strangely affected sometimes, and cannot find anywhere a description of the disease, although I have examined different books and papers, the Cultivator included, for which I have been a subscriber for the last 16 years. He is generally affected while being driven or used. The first symptoms I have noticed are shying, as if seeing something before him, and then staggering backward. This continues but a short time, when he either recovers himself and it passes off, or gets entirely down, (which he has done,) and after lying a few minutes will be apparently right again. It appears to me something like a blind stagger. He has been subject to these spells for some four or five years. Sometimes I see nothing of it for six months or a year together, and then again he may have them several times in the course of a year. Some say it is fits, but I do not think so. I was told a short time since that it was heart staggers. Is there such a disease? If, there is, or if you or any of your correspondents can give me information respecting the ailment of my horse, and a remedy if there is any, you will do me a great favor, and perhaps may benefit some other of your readers. A SUBSCRIBER.

This disease is not improbably the *vertigo*—which usually comes on while the animal is travelling, continues a short time, and then passes off. He often shakes his head, reels, staggers, and stops short. The disease is generally incurable; veterinarians have not been able to obtain a satisfactory remedy. The best treatment, perhaps, is very moderate labor, light diet, cleanliness and pure air, and good grooming. If any of our readers have been successful with its management, we should be glad to hear from them.

PRICE OF APPLE SEEDS, &c.

Will you or some of your correspondents, inform me through THE CULTIVATOR, what apple seeds are worth by the bushel, and at what market. I washed a few seeds out this fall, and if it will pay I would like to go into the business another fall to some extent. B. W. M. Montgomery Co., N. Y.

Nurserymen and dealers have formerly paid workmen three or four dollars per bushel for getting out seed, and sold them again at six to eight dollars. During the past scarce years for fruit, the prices may have been a little higher. The present year the apple crop has been very abundant, and we hear of apple seed for sale in large quantities in all quarters. We question if it will be all sold—in which case much will be planted perhaps by those not nurserymen, affording a full supply of seedlings in a year or two.

Our correspondent will probably do best to advertise his seed, offering them at a moderate price—but it will be important for him to convince purchasers that his seed are good, and not from fermented pomace, which is a most fruitful source of failure—a few hours fermentation in the heap being sufficient to destroy vitality.

On p. 204 of the Illustrated Annual Register for 1859, our correspondent will find a mode described by which two men can wash out three or four bushels of seed in a day, provided there is plenty of fresh pomace, and a good stream of water.

THE CULTIVATOR.

ALBANY, N. Y., FEBRUARY, 1860.

Among the old and valued agricultural journals of this country, which have borne the burden of improvement in the heat of the day, no one has achieved higher distinction than the Albany CULTIVATOR. Indeed, it has more reputation both at home and abroad, than any other similar periodical in the United States; and yet, one has only to send fifty cents to the publishers, Messrs. L. TUCKER & SON, Albany, N. Y., to obtain a copy for a year.

The above notice from the Southern Field and Fireside, meets our eye just as this number of THE CULTIVATOR is going to press. We quote it because, coming from the pen of the Agricultural Editor of that journal, it is a compliment that we cannot but duly appreciate.

It gives us pleasure to be able to say that the subscription list of this paper has shown a gratifying increase during the past month upon the corresponding month in 1859. While we have to express our renewed acknowledgments to many of its oldest friends, we have also to welcome as its supporters hundreds, to whose efforts we owe the receipt of club subscriptions for 1860 for the first time.

The present number will go forth as a still better witness of the improvements promised for the year, than its predecessor for January. May we not, therefore, ask of our friends to prolong their exertions a little in its behalf? Challenging a comparison as to cheapness of price, with an equal amount of printed matter of any kind whatever—entirely aside from any merits it may possess as an Agricultural Journal—we think it has claims which our farmers would recognize far more generally, if we had the means of bringing the subject to their more particular notice. This is precisely why and where we ask, so often, the aid of of our readers—in enabling us to reach with a kind word from them, an outer circle of hundreds and thousands, within whose acquaintance we have no other way of placing our journal and its objects.

We will send for gratuitous circulation, copies of the January and February numbers of this year to any person requesting them, or to any addresses that may be named. Those who are now members of clubs, can procure additions to clubs at club rates. To those who have not seen the REGISTER for 1860, we repeat our offer to send a copy postpaid, *for use in canvassing for subscriptions.*

*** PLEASE SEE TERMS AND SPECIAL NOTICES on last page.

THE COMPREHENSIVE FARM RECORD.—We understand that C. M. Saxton, Barker & Co., 25 Park Row, New-York, have in press, a blank Record of the above title, which will be issued in January. It is to be a well bound folio volume of about 150 pages, with an explanatory introduction and a series of carefully prepared headings, arranged for entering every date and event useful for reference upon the farm—the results of each particular crop, and of each field, and every item useful for record and reference concerning domestic animals. The book is ruled and arranged for entering the results of twenty-five years, (from 1860 to 1884 inclusive,) and will supply every want, as to the means of arriving at a direct and intelligent understanding of the profit and loss of the various departments of husbandry. It is prepared by Dr. F. B. HOUGH of Albany, whose labors upon the last State Census have necessarily rendered the subject of Agricultural Statistics entirely familiar.

"ENGLISH DAIRY CHEESE."—We have used in our family, what is known as "English Dairy Cheese," for many years, from the dairies of Litchfield county, Conn., and the Western Reserve, Ohio, some of which have been of very fine quality; but a gentleman of our own state, who has been engaged for several years in making it, last week presented us one of 254 manufactured by him in 1858, of an average weight of 17 lbs., which we think superior to any cheese we have ever tasted; and that others appreciate its good qualities, we have evidence in the fact that the entire lot he made that year was sold to a dealer in New-York, at nineteen cents per pound. We have accepted an invitation to visit this dairy in June next, when we hope to furnish our readers with a full description of all its operations.

AN EARNEST APPEAL.—We ask our friends, after giving this paper a careful examination—if it meets their approval, and they desire to see an exclusively Agricultural and Horticultural Journal sustained—to make an effort to increase its circulation. It needs, and we think deserves, a much larger number of subscribers.

☞ Many people speak of English Agriculture as though some sudden wave from the Atlantic had washed out all the bad farming of that country, and as if there had followed in its wake a new system as exclusively good as the former had been exclusively bad. And as to Agriculture here, on the one hand we meet with groanings over worn-out soils, reduced production, older states deserted by their rural population, and new states following in a beaten track of exhaustion and ruin; and, on the other hand, with felicitations over wonderful evidences of progress, as though within a limited period a perfect revolution for good had been taking place.

No representation is a correct one which displays agricultural progress in Great Britain as anything else than the slow growth moulded by circumstances and developed by the increasing wealth, enterprise and sagacity, not only of the farmers themselves, but also, and perhaps primarily, of the manufacturing and commercial classes. And we are inclined to think that that picture of American farming would be most accurately drawn, which should show, how, with the increasing financial prosperity of the nation, every pursuit has felt an impulse, and how this impulse in our Agriculture has been turned to effect, just so far as improvement could be profitably pursued, and just so generally as there have been means in existence to diffuse a knowledge of the ways of improvement.

There can be no doubt that our fathers, frugal and industrious as they were, creditably as they lived both to themselves and to the country, were often guilty of the utmost profligacy, in their treatment of the resources of the soil; but it is equally true that, without the excuse their fathers had, too large a part of this present generation still adhere to the old furrow. The good seed, however, has been widely sown; the agriculture of those who never read an Agricultural Journal, or go to a Show, is affected more than they might care to own, by the example of some more intelligent neighbor, who does read and look about him, and if there are on the one hand reasons for a somewhat gloomy view of our present condition, there are also causes for encouragement and hope. This is the case because progress is a matter which is either *relative* or *actual*. The canal boat goes forward, but to the railway passenger just above, it seems as he whirls more rapidly on, to be just standing still; and so the marvellous growth of our cities outstrips the actual advancement our country is making in some measure at least, and at the same time Science and Invention have done so much more comparatively for other arts, that the aid they have really rendered to the farmer seems almost insignificant in the contrast.

That farmers should feel the need of improvement, is a great step towards accomplishing it. No evidence that they are constantly awakening to this necessity, is stronger than that afforded by the numerous attempts now going forward for the establishment of agricultural schools. Without detracting from the importance of such movements, it should still be borne in mind that they are designed to diffuse a knowledge of the principles on which the practice already adopted by our best farmers, is dependent for its success, rather than to instruct the young man in the actual details of the practice itself. If there is no "royal road to learning," still less is there any academical or collegiate machinery capable of converting an inexperienced lad either into a money-making merchant or a money-making farmer.

The truth is, that for the sake of their sons, if not for their own, our farmers should endeavor to render the farm

itself a school of agriculture, allowing no year to pass without bearing witness to some efforts after immediate and tangible good, not less than to increase if possible the attractiveness of their pursuit to the young, by setting an example in seeking that information of which it presents so many channels. So long as men differ in the degrees of success they achieve, and in the constitution of their minds, so long we can all learn something from one another. It is surely an appropriate season, now that the New Year is fairly begun and the days are already lengthening for the seed-time of another harvest—to prompt every farmer who reads this sheet to the earnest inquiry, "How am I to make 1860 mentally and materially a better year than 1859?" Is there any one ready to claim that there are no means within his reach for the accomplishment of this purpose?

IMPORTANCE OF AGRICULTURAL PAPERS.—

Our soil is as good, our facilities are as great, and our people as enterprising as any on the globe, and it only requires time with a steady improvement, not only to accomplish this, but in my opinion, go beyond it, [the production upon English farms.] Now, it is by communicating information—by a friendly interchange of intelligence, it can be accomplished—but it must be through our Agricultural Journals and Agricultural Fairs.

I acknowledge myself as a practical farmer, deeply indebted to the CULTIVATOR and COUNTRY GENTLEMAN for information I have acquired from them for many years. The last year, particularly, I have been more than usually interested in reading a series of articles published in that paper, of information acquired by one of its Editors while abroad, which has added much to its usefulness and general excellence. We have many excellent Agricultural papers published in this State, and no farmer does justice to his profession, his intelligence, his family, or his farm, who does not take one regularly; for I have not yet seen the first man, except the most conceited and stultified, who cannot be made wiser by reading a good Agricultural paper.

The above extract from the Kinderhook Rough Notes, forms the conclusion of an interesting article on the "Progress of Agriculture," in which we can trace the pen of our friend, Dr. BEEKMAN, one of the committee in charge of *The Cultivator* when it was originally established as the organ of the old Agricultural Society of this State.—Dr. B. justly remarks, that "from the information diffused by this paper and many others now published in different portions of the State, a greater impulse has been given to Agriculture within the last 20 years, than in the whole century that preceded it."

SQUASHES.—Mr. GEO. W. BROWER has handed us on trial a part of a Squash, the seed of which was sent him, he states, a year or two ago, by a brother in Chili, South America. It was solid, and in as good order as if just plucked, and proved of first rate quality. ——— Friend I. W. BRIGGS supplies us with a sample, dried, of the "Honolulu Squash," which we have heretofore highly noticed. His price for the seed is "*One Dollar a Dozen* and no less, except as premiums for subscriptions."

N. Y. STATE MAP AND GAZETTEER.—Under the supervision of J. H. FRENCH, a large and very full map of this State, including "the location of school houses, churches, mills, factories, post-offices, hamlets, villages, lakes, ponds, streams, canals, railroads, hills, and mountains," has been published by R. P. SMITH. It is accompanied by a Gazetteer containing "a general view of the topography, geology, history, and institutions of the State, including the internal improvements, education, religion, legislative, judicial, and administrative departments of government, agriculture, manufactures, commerce, and navigation. Also, a brief history and description of every county, city, town, village, hamlet, and locality; all prepared from material collected by competent men, who have been sent through the State for the purpose. The map covers an area of about 36 square feet, and is engraved and manufactured in the best style of the art. The Gazetteer is a royal octavo volume of about 700 pages, illustrated by fine original engravings, on steel, of prominent points of interest in the State. It is well printed, on good heavy, white paper, and elegantly and substantially bound. These works are sold only by subscription. Price invariably $10."

SALES OF SHORT-HORNS AND SOUTH-DOWNS.—We are pleased to see that the demand for fine stock continues good, at least in some directions. Mr. S. W. Coburn has lately purchased from SAM. THORNE, Esq., "Peveril," and taken him to California. By the last steamer Mr. PATTERSON sent out two rams and five ewes, purchases from Mr. T.'s South-Down flock, and Mr. T. also forwarded at the same time a very fine yearling heifer to Mr. A. B. FORBES of San Francisco. Mr. D. MCMILLAN, Jr., Xenia, Ohio, last week started for his place from the same herd, "1st Duke of Thorndale," and a bull calf from "Buttercup 2d," and Mr. RICHARD BRADLEY of Brattleboro, Vt., purchased "Field Marshall" the week previously. California particularly, seems to be thoroughly awakened to the value of all kinds of improved stock. Every steamer now takes out more or less.

THE HOG CHOLERA.—If any of your numerous readers know what will cure or prevent the disease in hogs, called cholera, they would confer a great favor by letting it be known through the columns of the Gentleman. Numbers of hogs are to be seen lying dead on the road-sides. Mine are dying fast. They do not eat, but droop and die in a few days. No purging or anything unnatural, save, perhaps, in some instances after death, the blood seems to have settled towards the hinder parts, (or say from the loins back.) What the disease is, I do not know. Some of my neighbors call it cholera. The propriety of the name I cannot see. JAMES MOORE. *Bullitt Co., Ky.* [In visiting an excellent Delaware farmer a year or two ago, Mr. BRYAN JACKSON, of New Castle Co., he stated that a pint of tar put in the bottom of a trough, say 12 feet long, with a couple of ounces of flour of sulphur, proved very beneficial; an ounce of dissolved saltpeter was also put with the swill into the trough once a day, and chloride of lime sprinkled about their sleeping places. When the first trial of this remedy failed, a second was successful.]

WALKING HORSES—A SUGGESTION.—I would like to suggest an idea, which, if you approve, you can prepare an article, or get some of your correspoudents to discuss, as to the propriety of a premium being offered at our annual Fairs, for fast walking horses as well as trotters. I think horses trained to walk fast would be a greater benefit to farmers in general than fast trotters, as almost all of his work has to be done with a walk. I once knew a man in Massachusetts, who, before the railroads were built, kept from two to four teams at work on the road, and never allowed them to trot at all, and made the distance in quicker time than his neighbors, who made their horses trot at every convenient place. He said that when a horse commenced to walk after a trot, he walked much slower than his common gait if kept on a walk, and thereby lost more than he gained. A. H. *Oak Creek, Wis.*

☞ We understand that Jos. JLUIAND, 2d, of Bainbridge, N. Y., has lately sold the North Devon bull "Young Metropolitan," to Wm. O. Williams, Esq., of Sandford, Broome Co., N. Y.

OBITUARY.—During the month of December last, our State Agricultural Society lost three of its more prominent members and officers in times past—B. B. KIRTLAND, for several years Treasurer, Judge VAN BERGEN, of Coxsackie, one of its early Presidents, and Judge TURRILL, of Oswego, last year Vice President for that district. Mr. Kirtland, as many were aware, had been for some time in failing health, which was indeed the reason why he relinquished a year or two ago, his connection with the Society. At the meeting of the Executive Committee in this city last week, a committee was appointed to prepare appropriate resolutions, which will appear in our columns when presented.

VERMONT STATE AG. SOCIETY.—At the annual meeting of the Vermont State Ag. Society, held at Middlebury, on the 5th of Jan., the following gentlemen were elected officers for the year ensuing:

Prosident—E. B. CHASE, Lyndon.

Vice Presidents—Edwin Hammond, Middlebury; J. W. Colburn, Springfield; H. H. Baxter, Rutland; and Henry Keyes, Newbury.

Treasurer—Edward Seymour, Vergennes.

Secretary—Charles Cummings, Brattleboro'.

Directors—Frederick Holbrook, Brattleboro'; U. H. Penniman, Colchester; David Hill, Bridport; H. S. Morse, Shelburn; John Jackson, Brandon; John Gregory, Northfield; D. B. Potter, St. Albans; Daniel Needham, Hartford; D. A. Bennet, Bridport; Elijah Cleavland, Coventry; and Henry E. Root, Bennington.

The Treasurer's report shwed a balance in the treasury of three thousand, three hundred and thirty-two dollars and seventy-five cents.

JOHN KOLBER'S Second Importation of
HUNGARIAN GRAPE SLIPS,

Will be received per steamer in March next, consisting of 30,000 hardy shoots, embracing a selection of TWENTY-ONE of the choicest varieties of

TABLE AND WINE GRAPES,

Suitable for Out-door Culture in every section of the United States.

The Slips will be long, thrifty, thickly budded, ALL HARDY. Some excel on mountain slopes of moderate elevation; others on plains.

To secure their prompt delivery, ORDERS should be sent in early, that the Proprietor may be enabled to forward them in good condition on their arrival.

Sold in lots to suit purchasers. A bundle containing ten varieties, each carefully marked, will be forwarded to order for One Dollar by Express, payable on delivery. One Hundred Slips for Five Dollars. A liberal discount to Agents, Vine-growers and Nurserymen. Send for Descriptive Catalogues.

JOHN KOLBER,
Feb 1—m2t 592 Broadway, New-York.

RASPBERRY PLANTS AND SEEDLING POTATOES.

FOR SALE—10,000 HUDSON RIVER ANTWERP RASPBERRY PLANTS, at $20 per 1000—$2.50 per 100.—Also 100 barrels 'STUDLEY SEEDLING POTATOES"—a very early kind, not subject to the potato rot—fall price $2 per barrel.

Address S. V. C. VAN RENSSELAER,
Nov. 10—w3tm3t Claverack, Columbia Co., N. Y.

Six Hundred and Seventy-two Pages and nearly NINE HUNDRED ENGRAVINGS!

"RURAL AFFAIRS."—Under this simple and comprehensive title, the Publishers of the ANNUAL REGISTER have just completed a new edition of that work from the beginning,—embracing the Numbers from 1855 to 1860 inclusive, in Two Volumes, muslin, full gilt, fine paper, and wide margins, sold either separately or together, at One Dollar each, and furnishing a

Complete Encyclopædia in Miniature,

For every man with a Farm, a Garden or a Domestic Animal—for every Place which will grow a Flower or a Fruit Tree—for every Purchaser or Builder in the Country, and for every Household in the City, delighting in representations or looking forward with hopes of Rural Life, embracing under the head of

I. Country Dwellings,

FORTY-TWO DESIGNS for Cottages, Farm Houses, and Villas, with Plans in many instances of several floors, and including under this head alone, One Hundred and Twenty-seven Engravings.

II. Improving, Planting, and Laying out Grounds.

Several Chapters will be found on these and kindred Subjects, with many full and practical details, illustrated with no less than Ninety-one Engravings.

III. Fruit Culture.

On this Subject we have not only Directions for Cultivation, but also concise and reliable Descriptions of the most Valuable Sorts, with Lists for different parts of the Country, and One Hundred and Ninety-seven Engravings.

IV. Farms and Farm Buildings.

Under this Department we have Mr. THOMAS' admirable Prize Essay on Farm Management, Suggestions on Laying Out Farms, with Plans, and Designs for Farm Structures, including Barns, Piggeries, Poultry Houses, Smoke Houses, Cisterns, Carriage Houses, Stables, Granaries, Sheep Houses, Wagon Houses, &c., &c., and Ninety Engravings.

V. Farm Implements.

Here Descriptions more or less full, with accompanying Remarks, are given of a wide variety of Implements—especially those that are new and valuable. Eighty-eight Engravings.

VI. Domestic Animals.

The different Breeds are Illustrated, and various Recipes and Directions given for the Treatment of their Diseases. Poultry Management is here included. Forty Engravings.

VII. School Houses.

A Chapter on this Subject includes Four Designs and Eight Engravings.

VIII. Butter and Cheese Making.

A Chapter upon the Dairy and its Processes, will be found most valuable and interesting. Thirteen Engravings.

IX. Kitchen and Flower Garden.

Articles on the Management of these portions of the Homestead Grounds are Illustrated with Twenty-seven Engravings.

X. Rock Work and Rustic Structures.

Conservatories, Vineries, and Rustic Ornaments of Wood and Iron, both for Out-doors and Indoors, with Sixty-one Engravings.

XI. The Apiary.

A Chapter is contributed under this head, by the Author of the "Mysteries of Bee-Keeping,"—with Eleven Engravings.

XII. Under Draining.

Probably the most concise and Complete Practical Essay ever published on this subject. Twenty-eight Engravings.

XIII. Hedges.

With Thirteen Engravings.

XIV. Farm Gates and Fences.

With Thirty Engravings.

So brief a summary is only calculated to give an imperfect idea of the general scope of the work. Over **800** Illustrations are above referred to, and there are many more in connection with various Agricultural, Horticultural, and Domestic Subjects. A Complete List of the Principal Nurseries in this Country and Europe, is given in the Second Volume.

The Volumes are sold separately, and orders for either should specify particularly whether the one wanted is the First or Second.

☞ FAVORABLE TERMS TO AGENTS. ☜

"RURAL AFFAIRS" is also particularly commended for School Districts and Town Libraries, as well as for Premiums to be awarded by Agricultural and Horticultural Societies.

LUTHER TUCKER & SON,
Jan. 1, 1860. Albany, N. Y.

HUDSON RIVER ANTWERP RASPBERRY PLANTS, $2.50 per 100; $20 per 1000.
Lawton and Newman's Thornless Blackberry Plants, $6 per 100.

DAVID KETCHAM,
Oct. 1—mtf. Milton, Ulster Co., N. Y.

GREY DORKING FOWLS.—I will spare a few pairs or trios of superior young Grey Dorking Fowls at $5 per pair or $7 per trio. Address

S. V. C. VAN RENSSELAER,
Nov. 10—w&m3t. Claverack, Columbia Co., N. Y.

LAWTON BLACKBERRY.—To obtain the original variety for field or garden culture, address

WM. LAWTON, New Rochelle, N. Y.

☞ Circulars, with ample directions, will be forwarded to all applicants, free. Aug. 1—m12t.

FOR SALE, CHEAP.

NORTH DEVON BULL "JUPITER," (463,) Calved March, 1856; Color Dark Red; weight, 1,500 lbs. He is in good condition, and in every respect a first class animal. Price $100.

JOHN CORP,
Jan. 1—m3t. Freetown, Cortland Co., N. Y.

BERKSHIRE PIGS of pure breed, and at a low price, for sale by

WM. J. PETTEE,
Oct. 6—w&mtf. Lakeville, Conn.

NOW READY—Single Copies sent by mail, post-paid, for Twenty-five Cents—ONE DOZEN COPIES, post-paid, for Two Dollars. Agents Wanted.

THE ILLUSTRATED ANNUAL REGISTER
Of Rural Affairs for 1860.

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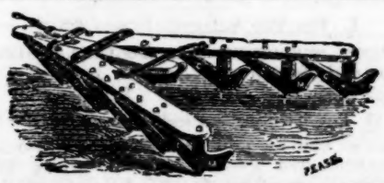

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